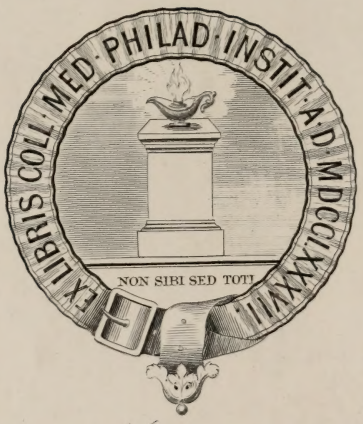
15291


EX LIBRIS COLL MED PHILAD INSTIT A D MDCCLXXXVII
NON SIBI SED TOTI

No

LIBRARY
COLLEGE of PHYSICIANS
OF PHILADELPHIA

THE

CHICAGO MEDICAL JOURNAL.

A MONTHLY RECORD OF

Medicine, Surgery and Collateral Sciences.

EDITORS:

J. ADAMS ALLEN, M.D., LL.D.
WALTER HAY, M.D.

VOL. XXVIII.

CHICAGO:
W. B. KEEN, COOKE & CO.
1871.

INDEX.

A PAGE

Anus, Imperforate 15
Anatomy, Early History 40
Army, Surg. Gen. Report 41, 122
Alumni Meeting 48, 149
Arsenic in Phthisis 57
American Practitioner 126, 672
American Journal Obstetrics 127, 371
Anatomical, Bill 128
Abdominal Effusions, Relief 225
American Medical Association 255, 356
Aspermatism 264
Across the Continent 308
Alcohol, Exp. on Effects 490
Abdominal Typhus 585

B

Board of Health 45
Belladonna, Typhoid Fever 54
Bismuth, Infantile Diarrhœa 55, 318
Bliss & Sharp 252
Brain, Punct. Wound, Recovery 294
Bladder, Malposition 347
Brainard Medical Society 384
Blood, Corpuscle, Red 561
Bigelow, Medical Education 660
Bromo-Chloralum 673

Book Notices:

Galvano-Therapeutics—*Neftel* 36
Physics and Physiology of Spiritualism 37
Specific Med. and Spec. Medicines—*Scudder* 38
Transactions Am. Med. Association ... 39
Fractures and Dislocations—*Howe* 39
Satan in Society 108, 122, 251, 504
Dis. of Rectum—*Van Buren* 120
Books Received 121, 183, 302, 444, 647
Billroth's Surg. Pathol. and Therap... 233
Medical Chemistry—*Rand* 238
Reflex Insanity in Women. 240
Modern Therapeutics—*Naphey* 240
Legendary and Mythological Art 241
Tanner, Infancy and Childhood 440
A Physician's Counsel, etc.—*Taylor* ... 559
Nervous System—*Hammond* 561
Opium and the Op. Appetite 644
Obstet. and Gynæcol. Works—*Sir J. Y. Simpson* 645

C

Chloral, Hydrate 12, 51, 344, 353, 376, 377
Cœci Appendix, Foreign Body in, etc... 17
Cœcitis, etc 19, 75
Croup and Cubebs 53
Cancrum Oris, Heat 56
Carbolic Acid in Phthisis and Diphtheria 56
Carbolic Acid, Preparations 57
Cigarettes, Medicated 59
Croup and Lactic Acid 62
Cathartic Pills, Officinal 147

PAGE

Carbolic Acid, Poisoning by 192
Criticism, Verat. Virid., Scarlatina .. 208, 331
Combustion, Spontaneous 224
Carrion Flies 251
Correlation Phys. and Vital Forces .. 276, 367
Chicken Cun 308
Chloral, Large doses 315
Cinchona in Java 320
Croup, Bromide Potassium 351
Children's Diseases, Quinine 378
Children's Sickness and Diarrhœa 378
Circular to Alumni Ch. Med. College 383
Carbolic Acid in Diphtheria, Aff 385
Cancer Cells, Micros. Ap 391
Colitis, Subacute 409
Cranium, Fracture 469
Children, Massacre of the Innocents 500
Cundurango 503, 505
Cataract, Statistical Report 519
Cholera in Pregnancy and Childbirth 536
Correspondence, Home 542
Cholera, Asiatic 566
Children, Feeble Minded 576
Cholera Infantum 666
Calamity 670

D

Diphtheria, Treatment 54
Death, Diagnosis 56
Dyspepsia Cured by Milk 79
Devil, Uses of 248
Degeneration—*Hitchcock* 305
Diaphoresis, Therap. Value 349
Delirium Tremens 380
Doctors in U. S 447
Different Diagnosis Acute Phthisis and Typhoid Fever 487
DeWitt County Medical Society 511
Death, Legal and Actual 600

E

Erysipelas, Sulphite Soda 20
Exchanges, Notice of Several Non-Prof. 43
Electro-Therapeutics 92
Education, Medical, in England 176
Error, Organ-ic 251
Emboli—*Hay* 291
Epistolary 295
Eye, Intraocular Ossification 449
Ear, Physiology—Sound 465
Epilepsy, Syphilitic 549

F

Foundlings, Mortality 55
Foreign Correspondence 176
Femur, Fract., Non-Union, etc.—*Parkes* 338
Fœtus, Extr. Uter., Deliv. through Abdominal Walls 406
"Formula No. 2." 471

15291

PAGE

G

Grape Sugar, Improved Test 52
Gastric Douche 58
Gynæcological Journal, Boston 239
Gutta Rosacea 267
Glue Resisting Moisture 366
Gaillard-Vandell, Imbroglio 446
Gynæcological Clinique R. M. C. 527

H

Hospital, Cook County, Clinic .. 8, 94, 171, 254
Harelip, Operations—*Hotz* 88
Humerus, Fract. Anat. Neck 214
Humerus, Excis. Head—*Clark* 326, 462
Half Yearly Compendium 371
Hepatic Abscess, etc., Successful Treat .. 412
Hypodermic Medication 418
Hearing, Mechanism 436
Harvard Univ. Medical School 447
Hæmatemesis, Transfusion 507
Homœopathy, Modern Tendency 608

I

Items, News and Gossip 49, 188
India Rubber, White 51
Infallibility 52
Impotence Cured 54
Intestinal Obstruction 129, 321
Intermittent, I K, in 192
Inebriates, Report American Association 241
Illinois State Medical Society 313, 570
Intestine, Intern. Strang 314
Iodine Paint, New 317
Intermittent, Treatment 355
Intestinal Concretion 446
Iron, Elixirs containing 498

J

January, 1871, Editorial 44

L

Lithotomy 62
Lady Doctor—"*Pome*," 62
Labor, Preternatural 135
Lying Made Easy 371
Lens, Micros. Jour 564
Library, Medical, in Chicago 568

M

Malpractice—Charge of Judge Thayer 29
Malt Extract 47
Matter, Living and Dead 193
Memoirs, Med. and Surg.—*Jones* 309
Morbid Specimen 373, 570
Meat Prepared in Java 381
Milk, Abnormal, Nutrition 439
Military Tract, Medical Society 447
Michigan Mineral Springs 473

N

Neuralgia Mixture 39
New Hampshire Medical Society, Trans. 42
New York Ear Dispensary 509
North Iowa Medical Society 510
Nose, Foreign Body in 526

O

Orbit, Cavernous Tumor, etc 1
Obituary—*H. F. Chesbrough, M.D.* 63
Opium in Metro Peritonitis 115, 220, 306

PAGE

Obituary — *E. A. Clark, Niemeyer, Scanland, Hooker, Noble* 310
Orchitis, Treatment 369
Opium 477
Obstetrical Forceps, Management 623

P

Pemphigus, Chronic 4
Palpitation, Diagnostic Value 21
Puerperal Convulsions, Chloral in 58
Phosphate of Lime in Sweating 119
Pamphlets Received 123, 246, 304, 650, 667
Protection 127
Pepsine and its Incompatibles 212
Peppermint Oil, Anæsthetic 315
Paraphymosis, Treatment 368
Petroleum in Dry Rot 369
Parke, Jennings & Co 371
Placenta Prævia 375
Poisons, Effect on different Animals 379
Pepsine and Medical Preparations 381
Prurient Prudes 446
Perineum and Rectum, Laceration 525

Q

Quackery, Illustrations 55, 124

R

Rogers, E. C., M.D., Marine Hospital ... 125
Responsibility 126
Rush Medical College, Com 149
Replies to Senex 608, 613
Richardson, J. G., Address 657
Rush Medical College, Session 1871 and 2, 669

S

Schoolmaster Abroad 52
Soil and Disease 59
Skin, Transplantation 219
Syphilis, Nervous 257
Surgical Cases—*Clark* 288
Scleriasis—Scleroderma 493
Sympathetic Nerve, Chart 505
Sciatica, Treatment 508
Senex 542
Sponge Tents 577
Surgical Clinic, Prof. Gunn 593
Seaverns, Joel, M.D., Address 650

T

Trismus Nascentium 14
Toothache 58
Transfusion 203, 507, 595
Typhoid Fever, Cold Baths 230
Typhoid Fever, Strychnia 341
Tetanus 379
Tin Foil Wrapping 380
Turkish Baths 567

U

Uterine Dis., Instruments 80, 138, 267, 398
Uterus, Enlargement 316
Ureters, Pulsation 377

V

Veratrum Viride, Prac 65, 208, 331
Vivisections, Prof. Freer 200
Vesico-Vaginal Fistula 454

W

Water and Fire, Therap. Agents 513

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII. — JANUARY, 1871. — No. 1.

Original Communications.

ARTICLE I. — *Cavernous Tumor of the Orbit, Complicated with a large Sanguineous Cyst. Successful Removal without injury to the Globe or the Optic Nerve.* By E. L. HOLMES, M.D., Professor Ophthalmology in Rush Medical College; Surgeon to the Chicago Charitable Eye and Ear Infirmary.

Firm and well defined tumors, having an internal structure almost identical with that of the cavernous portion of the penis, are quite rarely found in any portion of the body. But five cases, I think, of such tumors in the orbit are on record.

The following case must be considered as remarkable for its great rarity and for its singular complication with a large sanguineous cyst.

Mrs. B., æt. 48, mother of five children, consulted me in June last with the following objective symptoms. The left eye—the right being perfectly normal—protruded from the orbit to such an extent that on opening the lids widely, the patient was unable to close them without manual assistance. The cornea, normal in appearance, was turned extensively inward and slightly downward. The pupil was moderately dilated and immovable; the

conjunctiva but little congested and not œdematous; the upper lid much distended; the lower one somewhat thickened. There was scarcely any motion of the globe.

At the outer and upper portion of the orbit there was a large tumor projecting between the globe and orbital wall. This tumor, from its position, and great movability, could be recognized almost certainly as the lachrymal gland, pushed forward by some growth behind.

The ophthalmoscope revealed numerous radiating lines in the lens, which materially impaired vision and rendered a view of the fundus indistinct. The enormous exophthalmos had slowly developed during the past year and a half.

The patient had never suffered actual pain, although there was a disagreeable sense of distention and weight.

The cause of the disease was absolutely unknown. There was no hereditary tendency to cancerous disease. The patient's general health had been excellent, until she had been informed some months since, by a physician, that the disease was cancerous. This had depressed her spirits, broken her rest, and destroyed in a great measure her appetite.

She was consequently in an enfeebled condition on coming under my care.

The diagnosis was doubtful. In consultation with Prof. M. Gunn, M.D., and W. C. Hunt, M.D., to whom I am greatly indebted for advice and assistance, it was decided to make an incision over the tumor and examine the microscopic structure of the tissue beneath.

On making the incision between the lid and globe at the upper and outer portion of the orbit, the lachrymal gland at once protruded almost entirely through the wound in the conjunctiva. The gland was extirpated to facilitate further steps. On passing the finger less than half an inch through the wound thus made, I discovered a well defined and quite hard tumor nearly filling the outer half of the orbit in front, and extending to an unknown distance posteriorly. Dr. Hunt made a microscopical examination of the tissue around this tumor, but discovered no cells of a malignant character. I therefore made an incision into the tumor, when, at least two and a half drachms of bloody fluid escaped. By means of a pair of forceps and the handle of the scalpel the entire cyst, although totally collapsed, was readily removed.

On again passing the finger into the wound I discovered another tumor situated quite deep at the lower and outer portion of the orbit. During and after the removal of the cyst the optic nerve could be felt with the tip of the finger for a distance of at least half an inch.

The tumor was removed from its deep position with the greatest facility without dissection, almost as if it had been a loose foreign body in the orbit. The globe receded at once to its natural position.

It must certainly be regarded as remarkable, not only that during the whole operation a very small quantity of blood was lost, but that the tumor seemed to have scarcely any attachment with the adjoining tissues.

Neither the optic nerve nor muscles were injured during the operation.

At the end of two weeks the wound had nearly healed; the motions of the lids and globe, although the orbicularis and recti muscles had been enormously stretched, had become quite natural. I subsequently heard that the motions of the eye were almost absolutely normal.

The tumor was one and a quarter inches long, two-thirds of an inch wide, and three-eighths of an inch thick, resembling in form and hardness a testis. It was surrounded with a very thin capsule. On making a small incision into it, I found it divided into minute cavities, filled with blood and separated by very thin walls. The connections between these spaces were not free, since pressure of the tumor forced the blood from the divided cavities alone. Deeper incisions and pressure caused more blood to escape.

The microscopic appearances, as examined by Dr. Hunt, were almost identical with those of the corpus cavernosum of the penis, although there seemed to be no true veins, arteries, nor nerves. The inclosing membrane or capsule, although thin, was very richly supplied with vessels; there was difficulty in following the entrance of these vessels into the tumor. No portion of the tumor, showing connection with the cyst, could be discovered.

ARTICLE II. — *Chronic Pemphigus, (Pompholix diutinus of Willan and Bateman.)* By WALTER HAY, M.D., Chicago.

The subjoined analysis of a case of this disease is presented to the readers of the JOURNAL not only on account of its extreme rarity in this locality, but also, and more particularly, to illustrate the peculiar relations of the nervous system to cutaneous eruptions.

M. A. G——, a young girl aged about fifteen years; the second of six children, the four younger of whom have always enjoyed perfect health, born of healthy parents, both living, had suffered since early childhood, together with her older brother, from occasional attacks of cutaneous eruptions said to have resulted from the inoculation of spurious (?) vaccine, the same having been taken from a child having an eruption upon its scalp. The four younger children were not vaccinated from this source.

A long period of immunity from these attacks, characterized by the enjoyment of perfect health, was marked by no incident until the appearance of the catamenia in May last (1870) and their regular reappearance but once.

In August, (1870), her general health having been somewhat impaired since the interruption of the catamenia, bullæ appeared upon various portions of the cutaneous surface (face, trunk and extremities), and have continued to reappear up to the present time.

The bullæ are now apparent upon the cutaneous surface generally, but especially in the groins, upon the knees and in the popliteal spaces, where there are large patches denuded of epidermis and quite raw, preventing complete extension of the thighs and legs, embarrassing their movements, and causing flexion of the knees and hips, which, simulating contraction of the flexor tendons, interferes materially with locomotion.

There is great muscular debility, with some œdema about the face, neck and lower extremities, and pallor of the skin, lips and tongue, the latter having its surface smooth and its edges indented by the teeth. The pulse is small, sharp and wiry, though by no means accelerated, cardiac and respiratory functions feeble, but otherwise normal, alvine and renal evacuations said to be

normal. Conjunctivæ pale, pupils widely dilated, responding to the influence of light regularly and uniformly but slowly. The urine (sanguinis) passed early in the morning contains much albumen. The total amount of urine secreted between 12 o'clock, noon, of one day until the same hour the next (the bladder having been previously emptied of its contents) was twenty-two and a half (22½) fluid ounces, having the specific gravity 1024, at the temperature of 60° (Fah.) and presented under the microscope (350 diameters) no deposit but epithelium and a few amorphous urates. The whole amount having been allowed to stand in a covered glass funnel, for fourteen hours, in a cool place, the specimen for examination being taken from the lower stratum in the neck of the funnel.

To analyze the case by a consideration of the morbid phenomena in the order of their objective prominence, we will take first the cutaneous eruption which presents all the evidences of destruction of epidermis with its exfoliation, occasioned by profuse serous effusion, resulting from acute inflammation, not confined to the vessels of the cutaneous glandular system, but including large tracts of the subcutaneous layer, involving the antecedent of obstructed circulation by capillary spasm. To corroborate this is the additional fact of the general pallor of surface, and next the condition of the pulse, as if to demonstrate the participation of the whole arterial system in this condition of spasm, increased arterial action, or, to go still farther back in the chain of physiological relations, exalted vaso-motor irritability.

Again, the dilatation of the pupil furnishes a reliable index of the degree (relative) of this irritability, and moreover assists in localizing it in the ganglionic nervous system. (*Pourfour du Petit, Arneman, Dupuy, Jno. Reid, Campbell, Excito Secretory System*, page 80.)

That the cerebro-spinal system is primarily exempted from the operation of the morbid influence, there is the negative evidence of freedom from perturbation of intellection, special sensation, general sensation and motion, (except as obstructed mechanically by the œdema), and by the continuity of the morbid conditions. All the evidence in the case thus far considered points in one direction, *i. e.*, to visceral congestion, and the next step must be the determination of the viscus or viscera involved primarily or

secondarily, and from these to select the original offender. The comparative absence of physical signs of disease from most of the viscera, justifies their exclusion from any other than a secondary relation to the case, and the field of observation assuming more limited proportions, comprises only the urinary and reproductive organs. Of these, the first present an apparently wide departure from their normal status and functional energy, suggesting serious, indeed irreparable, structural lesion. The urine is highly albuminous, but at the same time accurate measurement demonstrates the fact that but twenty-two and a half ounces are secreted in twenty-four hours; now while the high specific gravity 1024, considered alone, would indicate an increase in the waste of tissue-forming solids of nearly fifty per cent., assuming Becquerel's standard of specific gravity of urine of women, 1015 to 1017, to be correct; yet the diminution in quantity, as compared with the standard of the same author (forty-seven ounces), being rather more than fifty per cent., the waste indicated by high specific gravity is corrected by diminished quantity. The aggregate waste, deduced according to Christison's formula, being 541·15 grains. The average excretion of solid matters by the kidneys in twenty-four hours is assumed by Golding Bird to be 650 grains, by comparison with which, the waste of solids by the kidneys in the case under consideration appears to be twenty per cent. less than it should be in health. Moreover, this waste consists principally of albumen, matter not yet having undergone oxydation. Now, a careful scrutiny of the sedimentary matters with the microscope fails to detect any tube casts or other renal debris, evidences of serious structural lesion, which, considered in connection with the last mentioned fact, not only forbids the localization of the primary lesion in the kidneys, but removes it to some point corresponding to a much earlier phase of the ascending metamorphosis of the blood.

Now, an essential lesion demonstrated in this investigation is diminished oxydation, and the analysis of the symptoms previously considered gave, as its result, spasm of the capillaries from exalted vaso-motor irritability, do not these two conditions stand correlated as cause and effect?

Exclusion has thus left but one organism to be examined, the reproductive system, and at this point, the collateral testimony,

supplied in the history of the case may be applied, in which will be furnished the last link in the chain of evidence to establish the suspended catamenia as the ultimate efficient cause of the cutaneous eruption. Reasoning from analogy, and recognizing frequently the influence of a similar cause in the production of neuralgia or convulsion, and their opposite conditions, anæsthesia or paralysis, by reflex action through the spinal cord according as one or another portion of that center may be awakened to morbid activity or oppressed in functional energy by eccentric irritation of its appropriate conductors, the conclusion is logical that continued irritation of the vaso-motor fibres of the ganglionic system should induce modifications in the nutrition of distant parts by reflex action propagated through the ganglia of this system probably located in the posterior columns of the cord itself.

With regard to the probability of syphilitic infection, it must be acknowledged to rest upon very slender basis. In the first place, pemphigus presents none of the specific features of syphilitic eruption, its fancied resemblance to congenital syphilis being obscure; the coppery tint usually recognized as almost pathognomonic of the latter is altogether absent in this case. Secondly, its pathological phenomena occur in the inverse order as compared with those of syphilis, which, after the lapse of so long a time from the supposed infection, would have manifested themselves by much more essential modifications of plastic force, than in simple exfoliations of the cuticle, the cutaneous glandular apparatus constituting its first channel of exit from the economy. Thirdly, the relations of cause and effect between the inoculation of the virus and the eruption is not satisfactorily determined. For while it may be possible to inoculate the system with syphilis from a secondary pustule, it is utterly impossible to accomplish that result with vaccine. All so-called examples of spurious (?) vaccination should be subjected to much more rigid criticism than they have yet received. Fourthly, there is good ground for suspicion that the first appearance of the eruption was prior to the vaccination. All these data, in addition to the absence of syphilitic cachexia, are incompatible with the theory of syphilitic taint.

Moreover, the relation of pemphigus to syphilis has not been generally recognized by systematic writers. Wilson ignores it

entirely, and suggests, as the cause of the eruption, intestinal (more especially uterine) irritation. Rayer, (quoted by the same author) attributes it, in one case, to suppressed hæmoptysis; and Duchesne Duparc (by the same), in a case of five years' duration associates it with arrested menstruation. Cazenave and Schedel, in their edition of 1847, coincide with Paul Dubois in regarding the pemphigus of newborn children as a "rare and serious form of *congenital syphilis:*" but in a subsequent edition (1852) speak of it as having "often been mistaken for a syphilitic affection." Nelligan is silent on this point, and vague and unsatisfactory generally. All the authorities, above referred to, agree in associating this malady in all its forms, whatever may be its exciting cause, with a debilitated state of the system at large, with poor and scanty food, over-exertion, low, damp dwellings, etc., as predisposing causes. And further, all of them indicate, vaguely and indefinitely, its *sympathetic* relations with various intestinal irritations, which they make no attempt to demonstrate or explain. By none is the relation of the nervous system to the disease even hinted at farther than may be comprehended under the word *sympathetic.*

ARTICLE III.—*Cook County Hospital Clinic.* Reported by C. T. FENN, M.D.

Oct. 11. Pathological. Prof. Johnson presented a case of paralysis of the vaso-motor nerves of the left side—a feature rarely seen. An elderly man, he was taken suddenly, after a debauch, with partial paralysis of sensation and motion of the left side. There was no alteration in size. He gradually recovered both sensation and motion, but with the retention of other strange symptoms. Sensation is now slightly exalted; the left eye is inflamed; there is a sensible increase of temperature, and the whole left side is œdematous. Paralysis of the vaso-motor nerves of the sympathetic system is the only thing which could cause this change in appearance. The vessels transmit more blood; hence the increased heat, œdema, and finally hypertrophy.

Oct. 18. Surgical. Prof. Powell. 1. Case of injury, admitted the

day before; trepanned soon after admission. He had fallen from a building, fifty feet, to the ground, striking on the right side of his head. He was comatose, and presented all the symptoms of compression. This is the third case of the kind within six weeks. The breathing, surface, pulse, and facial expression carefully observed. The only mark here is a superficial abrasion and a black eye. Coma and a black eye are, together, very grave symptoms. Nearly all the symptoms as laid down are sometimes absent. They are not so distinctly drawn between concussion and compression as the books show. Concussion recovers in a few hours; compression is more durable. There was dilatation of the pupil yesterday; there is a little to-day. He groans when his lame wrist is handled; pulse 82; respiration, not at all stertorous, is regular. He has spoken to-day. The danger is of inflammation. If he dies we shall find pus in the cavity of the arachnoid membrane. Use no perturbating treatment; no cathartic; no sedative. Treat symptoms as they occur; see to the urine; administer an enema, if necessary, every second day. Give a pint of beef tea every twenty-four hours. Trepanning is a grave operation; the injury is grave; but do not be deterred from using the trephine, especially if the injury is about the front of the head, and coma grows worse. Apply the trephine over bone of uniform thickness; don't wound the membrane.

2. Case of bursa on the wrist of a young girl. Ruptured by manipulation while an attendant was producing a tenotomy knife for subcutaneous puncture. Dressed with compress.

3. Case. Extensive circular sores at the knee. A woman aged thirty-nine, twice married, fell on the ice last winter, injuring her leg. The peculiarity of these sores is that they are circular, healing in one direction while they spread in another, and there are several. It is lupus exedens, and probably syphilitic. Best dressing—creosote ointment. Administer of iodide or bromide of potassium as much as she can bear.

4. Cases of venereal disease. These affections are not treated in the Hospital, but happening to get in from other causes, are reserved for exhibition. The three poisons of venereal disease are, 1, gonorrhœa; 2, chancroid, or local contagious ulcer; and 3, chancre. The first is local. The second is also local. The third is evidence that the system is infected. If you take any poison,

as woorara or opium, even, and introduce within the skin, it is immediately felt. It is absolutely certain that the poison of syphilis is immediately absorbed. A chancre is proof of it. You will cauterize it to no purpose. Case before us. Let us make a diagnosis. Chancroid is a local disease. There may be an ulcer, it may be sloughing or persistent; there may be a bubo. The distinction between syphilis and chancroidal disease is very difficult. One of the principal points to be determined is the time from exposure to the development. Chancre has a certain period of incubation, two weeks. In chancroid there is no such period. It sometimes appears almost immediately, certainly within two or three days. Chancroid looks like a clear punch in the mucous membrane. If in the integument it is at first a pimple, then a follicle, then a papule, then a pustule, then a deep ulcer. The local ulcer is more terrible to look at, followed, nearly always, by suppurating glands in the groin. The local ulcer will inoculate; chancre will not. In chancre the enlargement of the gland is hard like a pebble beneath the skin; rarely suppurates. Be guarded, but if you see a suppurating bubo, you may be pretty sure it is the local ulcer. In chancre the patient is almost certain to have constitutional symptoms in from three weeks to six months. He will have all the symptoms of febrile action. If you examine the head you will find patches; the throat will be dusky and red. You may from this have developed any one of the skin diseases. There is most apt to be developed, in the throat and about the inner surface of the lips, mucous patches. He is apt to have falling of the hair, pain in the bones, and ever thereafter be subject to a repetition of all the forms. Don't give mercury till you know you have syphilis to treat; for, by giving it you may produce all the symptoms you wish to alleviate. The one produces all the symptoms of the other. Mercury is a dangerous remedy in some hands. It is dangerous to give it in persons run down by any disease. This is a case of syphilis, for the sores are not irregular, not large, only two or three of them. The groin has a solid gland, not large.

Case. To show the development of some constitutional symptoms certain forms of skin disease come later than others. Syphilitic rupia may appear very late, three years. It is an exceed-

ingly destructive disease. This case looks like syphilitic rupia. He had a chancre eighteen days after exposure.

Case. Vegetations not venereal, result of a long prepuce. (Laughter, directed toward the side on which the ladies sat.) Direct the patient to be cleanly, and if he is not so, he is to be circumcised.

Case. Bony or sub-periosteal tumors following rupia. Give these cases preparations of iron and warm flannel. Do not give the alkalies, for they impoverish the blood.

Case. Syphilitic psoriasis; also, white patches. Treatment: Protiodide of Mercury, gr. iv; Iodide of Potassium, ʒ iv; Water, f ʒ viij. M. S. Give a teaspoonful three times daily. This will cure in six to eight weeks.

Case. Gonorrhœa, resulting in orchitis. Don't give injections, and don't be over anxious about checking these discharges, for you will be apt to get orchitis. It may lay the patient up. Treatment: Opium, to relieve pain. Open the bowels. Lotions to reduce the inflammation. In this case we will try penciling the surface of the scrotum with a solution of Nitrate of Silver, two scruples to the ounce, till the skin is vessicated. Our practice has been to strap these cases; but we will see how the new method works.

Case. Balanitic form of long prepuce getting well. He will have to be circumcised. These patients are all to be discharged. We cannot keep them here.

At the close of the hour the students were taken to the dead-house and instructed in the art of post mortem examination of the brain. Use the saw as you would trepan, being careful not to cut through the membrane. Familiarity with post mortem examinations is of use in giving one correct knowledge of the use of instruments. Perform as often as you can. Steps: 1. Part the hair over the top of the head from ear to ear. 2. Make an incision in the same line. 3. Invert both flaps of the scalp by pulling them from the scull. 4. Cut across the temporal muscles with a knife. 5. Start the saw all around the cranium. 6. Try with a chisel to see if it is through; you may break the inner table. You may use a hook. If the calvarium does not come off readily, know it is not quite through all around. Look at the inner surface of the calvarium; then the dura mater. Divide the dura mater with scissors

on a line corresponding with the division of the skull—turn it back; examine the surface of the brain. There may be a post mortem congestion. Remove the brain. Replace the parts in the order of their removal. A strong suture should be taken through the divided temporal muscles, for the purpose of holding the skull-cap firmly in place. If the brain should not be replaced no deformity can be seen when the operation is complete.

Medical. Ross. Case. Typhoid fever. Diarhœa began in the middle of the second week. Shows great prostration by the position assumed in bed, and indisposition to move. No delirium; tongue glazed, dry and crackling. Characteristic spots present. A pulse that is permanently 110; is a bad case. We do not always get a frequent pulse in typhoid, but we invariably get increased temperature, as indicated by the thermometer. Give a pint of good beef tea, made from a pound of beef, and two pints of milk every twenty-four hours. Keep plenty of air, and the temperature of the room at 60°. Cover the patient with blankets. If the meteorism is great, besides turpentine emulsion, we may use stupes. If it should be very great, we may give turpentine by enema. Morphine to secure rest.

ARTICLE IV. — *Hydrate Chloral.* By S. W. GOULD, M.D., Argos, Ind.

As a number of physicians have been giving their experience in the use of Hydrate Chloral, I will briefly give you mine. When the article was first introduced to the profession, I was afraid to administer it in larger doses than 10 grains to 15 grains, and as a consequence no visible effects were produced. I was disposed to pronounce it a *humbug*, and return to opium and its preparations to produce sleep and relieve pain. Soon after I was attacked with a very severe headache, for which I concluded to try the effects of the Hydrate Chloral in larger doses than I had been giving my patients. I dissolved 40 grains in a little water—adding a few drops of essence of peppermint to destroy the unpleasant taste—and swallowed it. In a few minutes the pain

was greatly relieved, though not entirely, and I felt as happy as a king at his coronation. In the course of an hour the pain returned with all its former severity. I weighed out 60 grains and took it. In less than five minutes I was in the land of Morpheus (or *hydrachloralus*), and the four hours which followed are a perfect blank in my existence. When I awakened the pain was gone, and did not return, nor were there any unpleasant results.

On the evening of the 2nd inst. my wife was attacked with tic doloureux (to which she is subject), and the pain was more intense than ever before. Opium, or any of its preparations, cannot be taken by her without the most distressing results. Nausea or vomiting will continue for twenty-four or forty-eight hours after taking even the one-eighth of a grain of morphia. I have given it to her by hypodermic injection, but the result was the same, of course. In this instance I concluded to try the Hydrate Chloral, my confidence in the agent being greatly strengthened by its effects on myself. About 7 o'clock I administered to her 40 grains. In less than ten minutes she was in a profound sleep, the breathing being more easy and quiet than in natural sleep. She lay in this easy condition for about two hours, when I aroused her for the purpose of getting her to her room. The pain returned and she went to her room screaming. I repeated the dose of 40 grains, which was followed, in five or ten minutes, by sound sleep, which continued till sunrise the following morning. The pain was gone—nothing remaining to remind her of the severe attack of the evening before but the soreness which usually succeeds an attack of this kind. Since then I have used the remedy in a half dozen similar cases, and with the happiest results. I now have almost unlimited confidence in the agent, and attribute my former failures to the small quantity given. I have talked with several physicians about the preparation, and more than half of them deny that it has any hypnotic property. Upon investigation, however, I ascertained that their failure to obtain its effects depended either on a deteriorated article, or too small doses. (Many druggists know nothing about keeping it.) As some are much more easily impressed than others, the physician should begin with the minimum dose, and increase until its effects are produced.

ARTICLE V. — *Trismus Nascentium.* By THEO. W. STULL, M. D., Marengo, Ill.

In reporting the following case, it is not with the fullest confidence that the recovery is attributable to the remedies used, and yet I am so fully persuaded of the efficiency of the particular remedies on which I finally relied, that I should most certainly resort to a like treatment in a similar case.

On the 8th of March last I was called to see a child of Mr. J. L., which he said was nine days old, and seemed to have a sore mouth, as it cried and would not nurse. I found a good reason for its not nursing in the closed jaws, and muscular rigidity.

Upon examination I found an erysipelatous blush extending an inch or an inch and a half around the umbilicus, from which a little unhealthy pus was oozing. The prescription was, Pot. Bromide, gr. iss, F. E. Aconite, gtt. ss, in solution, every two hours, and also the application of Carbolic Oil to the umbilicus, with continual fomentation. To be fed the breast milk with a spoon, though it swallowed with difficulty. Under this treatment the jaws relaxed considerably, and yet not being quite satisfactory, various other remedies were resorted to and abandoned, all now superceded by the original prescription, which was now persevered in to a somewhat tardy convalescence. An occasional warm bath was added to the original treatment in place of the fomentation.

I remark that these were usually cleanly people, though in poor circumstances. And various as the theories are as to the cause of Trismus, I am fully persuaded that in this case, at least, the cause was phlebitis of the umbilical veins.

Traveling.

The best mode of travel is on foot or on a saddle; the next best is in an open carriage, or in an old-fashioned stage coach. A sea voyage, and almost any mode of traveling by water, is, in general, useful; but it would be a serious practical joke if any one were to advise an invalid to seek for health in a railroad car.—*Medical Bulletin.*

ARTICLE VI. — *Case of Imperforate Anus, with Deformity of the Organs of Generation.* By MOSES BARRETT, M.D., Milwaukee, Wis.

Mrs. K., a German woman, was delivered on the morning of Sept 12, 1870, of a full grown child. She was attended by a woman, who discovered, on dressing the child, an unusual appearance of the genital organs, and a complete closure of the anus. I was called about six hours after the birth of the child. It was of large size, well developed, and to all appearance natural with the exception before mentioned. The abdomen was very much distended, particularly the lower part up to the umbilicus, and very hard, giving a flat sound on percussion. The attendant stated that more difficulty was experienced in delivering the body than the head. There was no appearance of any anus, or fissure along the perineum. There was a fold of the integument just below the pubis which well represented the external labia, from between which there projected a penis-like organ, about two inches in length, from the extremity of which urine was continually oozing out. There were no cavernous bodies or glans, but simply a pendulous mass of integument, oval in shape, the longest diameter being about half an inch. Along the upper part a round cord could be felt, which proved to be the urethra, terminating at the extremity, with the integument folded about after the form of a prepuce. So much did this organ resemble a penis, that the child was called a male, and baptized as such.

There was no opening between the labia, and the whole perineum was uniformly thick and unyielding. Hoping to find the distended rectum, I made an incision through the integument along the mesian line, from the point of the coccyx about one inch and a half. No signs of the rectum appearing, the dissection was carefully continued through the sphincter muscle, and along the curve of the sacrum over two inches. As neither rectum nor vagina could be discovered, the opening was enlarged so as to admit of the introduction of the little finger, which was passed up nearly the whole length, when a sac of fluid was distinctly felt. This was punctured with a bistoury and about twenty ounces of fluid passed off. At first I supposed I had punctured the bladder, but

upon examination the fluid was ascertained to be serum. The child was immediately relieved, and the tumefaction of the abdomen nearly disappeared. No further attempt was made to reach the intestine, as it was evident a fatal result must inevitably follow.

I saw the child again on the third day, found that it had taken nourishment, slept well, and urinated freely. During the first twenty-four hours after the operation serum continued to flow from the opening. I passed a common director up the passage formed, which entered the whole length without any obstruction. The child died on the morning of the third day.

Autopsy. On opening the abdomen, there were no adhesions, and no fluid was found in the cavity of the peritoneum. The stomach and small intestines were natural, and the large intestine also, except about six inches of the lower extremity, which was enlarged about twice the natural diameter. But the most singular object presented, was a bladder-like organ extending up to the umbilicus, which proved to be an enlarged *uterus*, with the fallopian tubes enlarged and sacculated—the right one of the size of a hen's egg. The bladder was situated in front, of natural size. The enlarged portion of the colon extended transversely behind the uterus. On separating the reflected peritoneum the intestine was found to terminate in a *cul-de-sac*, just as it entered the pelvis, and was firmly attached to the posterior surface of the uterus, near the lower extremity. There was no communication from the intestine to the cavity of the uterus, and the interior surface presented much the appearance of the natural rectum at the sphincter, with consecutive folds of mucous membrane and a central point or cicatrix. There seemed to be enough of intestine originally formed to reach the anus had it not been prevented from entering the pelvis by the enlarged uterus, or possibly, drawn up with that organ as it became distended with the serum.

The uterus measured over five inches in length and four and a half in breadth. There was no neck, but a small round opening at the lower part, resembling the os. I found I had punctured the organ just posterior to this point. The ovaries were found of natural size. Careful examination was made for testes, but none were found.

The case presents one of the most singular malformations on record. The abnormal development undoubtedly commenced in

the uterus very early in the period of fœtal life, and the closure of the perineum was the natural result. But what is remarkable, was the prolongation of the urethra with folds of the integument to the extent found. Nothing else had the slightest appearance of a male child.

ARTICLE VII.— *Cases in Private Practice.* By JNO. E. OWENS, M.D., Chicago.

Foreign Body in the Appendix Cæci, with Inflammation, Perforation, and Death.

Saturday, Dec. 8, 1866. A call was received to visit M. X., aet. 20, at his place of business. The message was not received for some hours. In the meantime another physician was called, who prescribed some medicine for internal use, and mustard externally. In consequence of this, I did not examine the case, but imagined it to be one of ordinary colic.

Sunday, Dec. 9. I was requested to visit the patient at his residence. He was in bed and suffering intense pain in the abdomen to the right of the median line. The patient was well nourished and had been in the enjoyment of health to the date of his present illness. On Saturday, 8th, he and one of his comrades were wrestling, but it seems that the patient did not exert himself very much. On Friday, 7th, he ate some chestnuts—not more than seven or eight. The same evening, he and some friends went out to walk, but the former soon returned, in consequence of pain in his bowels, which moved on Friday, 7th. That which passed, was scanty and hard, and its evacuation required considerable voluntary tenesmus.

The patient (Sunday, Dec. 9th) was found in the following condition: There was an irregular tumor in the right iliac region, extending about one inch to the left of the median line; its upper limit reaching a transverse line drawn two inches below the umbilicus; its breadth being about three and a half inches. The tumor, raised somewhat above the surrounding surface, offered considerable resistance to pressure, was exquisitely tender and

painful, and dull on percussion, the surroundings being somewhat tympanitic. The tongue was thickly coated, skin dry, pulse rather full and beating from 115 to 120; the bowels had not moved since Friday, 7th. There was nausea with some vomiting on Saturday, 8th. Ol. Tiglii was prescribed, of which he took about eight drops in two hours. Having remained with him to note the result of the oil, and having found that the bowels did not respond, I gave two large injections of soapsuds, castor-oil with a little salt. These came away in due time, bringing with them a few small, firm, yellowish pieces of fecal matter, containing pieces of chestnuts. When the injections were passing away, he cried, "O, if I could only strain!" I diagnosed intussusception. During this treatment the patient vomited once, but the ejecta were not of a stercoraceous character. Fomentations were applied over the bowels. This afternoon., at 4 o'clock, a consultation was held. In the meantime, there had been a greenish watery evacuation, containing mucus, and attended with considerable pain. The abdomen had grown more tympanitic. At the consultation there was an agreement as to the probable existence of intussusception of the bowel, but the diagnosis was not so positive as to justify any operative interference. The negative symptoms were, the alvine discharge, that had occurred since the last visit; the absence of stercoraceous vomiting; and the still more masked character of the case by the extending peritonitis.

Dec. 9th, 9 o'clock, P. M. He has had, from the bowels, four discharges, of the same character as the last one. The fecal smell was slight, and the operations were attended with less pain, the patient being somewhat under the influence of opium.

Dec. 10th, 8 o'clock, A. M. Patient bathed in a profuse perspiration; hands cold; feet warm; circulation, upon the surface of the body, sluggish; pulse small and feeble, beating 125; vomited some last night. The ejecta from both stomach and bowels were greenish and watery, containing considerable mucus. The substance vomited had no fecal smell; that passed per rectum had very little.

Dec. 10th, 12 o'clock, M. Tenderness more extended, suppression of urine since yesterday.

Dec. 11th. Abdomen more distended; patient passed water; urination being attended with great pain. Since yesterday, three

unsuccessful attempts have been made to apply leeches; directed that a blister 4×4 be applied to the abdomen.

Dec. 12th, A. M. Distention increased; tongue moist; pulse 114, of moderate strength; bowels moved last night; character of stool same as the previous ones, but with less mucus; vomited once this morning.

Dec. 12th, 4 P. M. Vomited about a pint of greenish fluid without fecal smell; tongue dry, abdomen very tympanitic, pulse 118.

Dec. 13th. Abdomen very tense, and exquisitely tender.

Dec. 14th. Since last date vomiting has grown more frequent; the eyes more and more sunken; the abdomen more tense; the patient more restless, tearing the flesh here and there with the finger nails; the tongue dryer. Death occurred to-day at 2 o'clock P. M.

Autopsy, seven and a half hours after death. Extensive peritonitis about the cæcum, the lower part of ascending colon, the lower coils of small intestines, accompanied with considerable agglutination. The adhesion of one or two coils of intestines to the urinary bladder accounts for the intense pain felt upon voiding this organ (bladder.) The contracting bladder produced a traction upon the inflamed peritoneum. The mucous coat in some parts of the intestines was inflamed and softened. The cavity of the abdomen contained about one and a half pints of chalky fluid. The vermiform appendix, containing pieces of chestnut, was a mass of inflammation, and was perforated in several places, so that the fluid contents of the bowels could readily escape into the abdominal cavity; a portion of the mesentery was likewise inflamed and softened.

Cæcitis with Partial Peritonitis. Recovery.

J. H., a stout and square-built Dane, æt. 21, having light hair, blue eyes, florid complexion, came under my care, Nov. 10th, 1870. Two days before, he experienced chilly sensations followed by pain in the right iliac region. The bowels had not been deranged. He remained at work the day of the attack, but in the evening, immediately after commencing to eat his supper, the pain suddenly became excruciating, and remained so for the greater part of the night. It was accompanied with nausea and vomiting.

Nov. 9th. Patient vomited considerably; pain less severe than that of the night before.

Nov. 10th. The date of the first visit, there was great tenderness in the right iliac region. A mixture of chloroform, laudanum and mucilage was ordered for internal use, and locally hop poultices. This evening the patient took three or four tablespoonsful of gruel, which caused considerable distress through the bowels. This was the first food taken since the evening of the 8th.

Nov. 11th. The bowels having been constipated since the 7th inst. moved to day; tongue somewhat furred, but moist; the face cool; pulse 103, and full; respiration easy and regular; slept but little last night; ordered Chloral Hydrate grs. xxx as a substitute for the first mixture. Hop poultices continued.

Nov. 12th. Took the first dose of Chloral Hydrate at 9 o'clock last evening, and went to sleep in a few moments and slept till 4 o'clock this morning. Pulse 84; respiration 18; tongue cleaner; skin cool; the part less tender and somewhat dull upon percussion, but there is still a faint resonance. The painful part, is a circumscribed swelling in the right iliac region. A line drawn from the middle of Poupart's ligament to the umbilicus, passes close to the center of the swelling. There was a scanty movement of the bowels this morning. The discharge was dark, but contained neither mucus nor blood, and its passage was unattended with pain. The patient has eaten a dish of soup to-day without any resulting distress. In four or five days more, the patient was very comfortable; a little soreness in the right iliac region still remained.

(To be continued.)

Sulphite of Soda in Erysipelas.

Dr. Hewson uses this salt applied on lint in a solution of ten grains to the ounce of water, and has obtained most satisfactory results. He supposes that erysipelas is due to cryptogamic or animalcular origin, and the well-known power of the sulphites in destroying such organisms accounts for its useful action in this disease. It invariably destroys all traces of the affection in forty-eight hours after the first application.—*Drug Circular.*

Selections.

Palpitation: its Diagnostic Value. By J. Milner Fothergill, M.D., Senior Resident Medical Officer of Leeds Public Dispensary.

Though the oldest known symptom of heart disorder, palpitation has never had any exact diagnostic value attached to it. It has been hitherto regarded as excited or increased action of the heart, without any reference to its causation. It may be fairly questioned whether this even is in accordance with fact. From a careful consideration of the subject for some time past, I have been led to regard it as solely diagnostic of a disturbance of the balance which exists between the blood to be driven by the heart and the power to drive it; and that, too, in the direction of cardiac inability. This impression is constantly growing stronger. The idea is founded not only on its exciting causes, but also on the known action of the remedies which enjoy the greatest reputation for efficacy in allaying it. It appears to be the first evidence of over-taxation of the heart, of which irregularity (in time, not in volume—that rather belongs to mitral regurgitation) is the next, and intermittency the most serious.* This idea may appear more or less novel, but probably less. Having been for some time past engaged in an investigation into the mode and manner of production and action of heart disorder and disease, it may not be presumptuous to offer my conclusions, and why I have formed them, to the notice of the profession.

Palpitation, then, to commence broadly, is usually associated with exertion, nervous excitement, or general exhaustion, no matter how produced. It can be no subject for doubt that many persons know palpitation only after excitement in a heart structurally sound, others after exertion in a heart structurally diseased. But in each it may be the chief burden of complaint; indeed, in the person with the sound heart it may be more severe and alarming. Though connected with such apparently different conditions, its diagnostic value is unaltered. It has been regarded as over-action: the truth seems to be, rather, that action is more apparent. The extreme of healthy action is utter unconsciousness that such action exists. The evidence of that action, then, is scarcely to be regarded as an evidence of power. Though hypertrophy and palpitation are often found together, palpitation is much more inti-

* It is the intention of the writer to issue other papers on the subject of Irregularity (i e., loss of rhythm) and Intermittency (i. e., loss of one or several beats from either absence of ventricular contraction or a contraction so feeble as to be impracticable), from time to time, as leisure will permit.

mately associated with dilatation. Hypertrophy evidences that there is some disturbing force in operation by which increased action and power on the part of the heart are called for; otherwise hypertrophy could not exist. We are unacquainted with any growth of muscular fibre which is not occasioned by increase of demand upon it. In the silently acting organic muscular fibre this is most apparent. Thus it occurs in the stomach before a pylorus narrowed by scirrhus; in the bowel in the presence of a chronic obstruction; in the bladder from prostatic change or stricture. So in the heart we have hypertrophy from the demand for it, and can no more conceive a spontaneous, uncalled-for hypertrophy of muscular fibre in the heart than anywhere else. Palpitation evidences the demand, and indicates the compensation to be still incomplete. But it is connected with the demand on the heart; not called forth by the increase of muscular power. Of old, hypertrophy was regarded as a disease, and was met by bleeding and starvation. It was regarded as an abnormal development of power, and, as such, was attacked as a disease. We now know that it is a compensatory growth; and, consequently, the more perfect the hypertrophy the less does the patient or any one else hear or know of it. So palpitation, which has been regarded as over-action, and treated accordingly, will soon be seen to be an evidence of the muscular power being taxed or wanting, and that it is connected with the want of power, not the excess of it. Palpitation is, like the pain in the distended bladder, an evidence that the muscular action is called on; but it is not that it is too strong for the work, but that it is unequal to it. In dilatation, with or without valvular disease, is palpitation most common in the structurally altered heart. It cannot, then, be an evidence of over-action, as the old theory ran; because then the palpitation should be absent on exertion and present in quietude. Now we all know that such is not the case. In this condition effort calls out palpitation, as occasioning an addition to the heart's labor. The muscles cross the arteries and impede the flow of the blood. Wardrop even called this the musculo-cardiac function, and thought it beneficial by filling the heart's chambers with blood, which it most unquestionably does. But in dilatation the essence of the disease is that the ventricles are always too full, and never completely emptied. The ventricle, no longer able to close completely in systole, is partially full to commence with on diastole, the distended auricle and veins drive in the blood under increased pressure, the fibres become over-stretched, distension results, and contraction is impaired. "Dilatation of the heart is a purely mechanical effect of over-distension." Palpitation, then, ought, on the old theory, to act as a curative agent in dilatation, and ought consistently to occur when there is no great call on the heart—that is, during quietude, when the demand is the least.

But notoriously it occurs in exertion, when the impeded flow of blood would act against this over-action. This creed is untenable, and may be left without further comment to the decision of my readers. In the structurally diseased heart effort is the common cause of palpitation. A species of balance has been struck between the power of the heart and the work to be performed; the system has lowered to meet the heart; a leveling-down process has gone on; and effort, by disturbing this balance, evokes palpitation. Palpitation evidences that the muscular fibres are making an effort to meet the demand on them; not that they are inordinately successful. It is laboriousness, not excessive power, that is indicated by palpitation. When the heart is acting excitedly, as in exertion, it is only when that exertion has been excessive that anything like palpitation is evoked. Take a "striker" (a forehammerman), for instance, after a "heat." All his muscular energy is called out to accomplish all that it is possible to do before the metal cools. Take him at the finish, with the perspiration rolling down, panting, exhausted for the moment, and you find his heart palpitating, so violent is its action from the recent strain upon it. But its effect is visible on the pulse, which is full and bounding, and in strict proportion to the action of the heart; and there it differs from palpitation. In excitement a similar violent action is seen sometimes, but the arterial pulse is again affected and reveals the excitement. But these conditions are not true palpitation. According to the old theory, palpitation ought to occur to the striker when unemployed, as the heart then could not have enough to do. Of course some readers may say, "And so it does." Certainly in time it does, as it does in any one else where violent calls on the heart are inducing structural change According to the old theory, the heart, accustomed to exertion, ought to palpitate whenever a lessened call on it left it with some spare power, which is let off harmlessly as palpitation. So also in exertion, the heart's action ought to be feebler in proportion to the obstruction offered. Whether what is consistent with the old theory is consistent with experience may be fairly questioned.

But, again, it may be said that palpitation occurs from excitement, and is nervous. But when we have eliminated the cases of Bright's disease and those so-called hysteric conditions accompanied by a contraction in the arteries and arterioles, the instances will be found to be very few, and to depend mainly on the presence of poisons, either taking their origin within the organism, as in bile-poisoning, for instance, or from the action of external agents, as nicotine. It is possible that there may exist conditions essentially nervous, where a derangement of the balance of nerve-supply to the heart, a disturbance of the balance existing between the cardiac ganglia of the sympathetic and the inhibitory action of the pneumogastric, may occasion palpitation; but of these condi-

tions we do not yet know anything clinically. Nervous palpitation is a refuge in time of trouble only too commonly. Increasing knowledge of pathological conditions, and the advance of our acquaintance with the mode of action of disordered function, are shedding much light on what have been hitherto obscure cardiac derangements. Firstly came the connection between disease of the kidneys and heart-changes. Traube attributed them to obstruction to the flow through the renal artery acting on the general systemic circulation; then came the idea of altered blood—in plain English, increased friction; and now Dr. Geo. Johnson has demonstrated a thickened muscular coat in the arterioles. The last theory supposes that the irritant action of the products of histolysis in the blood gives rise to a spasmodic action of the muscular tunic, in time leading inevitably, by the well-known law, to hypertrophy. Thus still greater obstruction is offered to the flow of blood, and the heart still more taxed. Thus when the blood is more than ordinarily laden with the products of retrograde tissue-metamorphosis, the excess irritates the arterioles, and more than usual contraction follows, and, as a consequenee, impeded flow and palpitation. The balance existing between the altered muscular tunics and the heart's walls, also altered, is disturbed and the accommodation interfered with, and the extra call for action evokes palpitation. As to the frequency of palpitation among those suffering from Bright's disease, and its occurrence along with evidence from other sources of an accumulation of retrograding material in the blood, as a question of fact, I must leave to the experience of my readers.

In hysteria and allied nervous disorders we have palpitation without evidence of any structural change. So also it occurs in persons of bilious temperaments; it follows excessive tobacco-smoking in nervous or weak persons, as it may also follow the administration of other agents which affect the heart. Whenever there is disturbance in the balance of nerve-forces it may occur. Whenever the heart is acting under disadvantageous circumstances it is never long absent. Thus palpitation follows displacement, either transient or lasting. It persists in displacement from accident or disease. It is a common concomitant of a loaded stomach or great flatulence. Indeed, it may arise from any cause which, by pressure on the diaphragm, diminishes the space for the heart and impedes its beat. This looks rather like a laborious action than over-action or spare power. The heart is placed at a disadvantage, and palpitation takes the place of normal quiet contraction.

Palpitation is intimately associated with a disturbed or altered innervation; whenever, in fact, there is a disturbance in the balance of the heart's nerve forces it may occur. In many cases of nervous palpitation—it would, perhaps, be thought premature to

say all—no increased action is felt in the arteries, great or small. Whatever nerve-derangement may induce the palpitation, there is no corresponding action in the arteries. The condition may be analogous to, and even homologous with, the disordered action of Graves' disease. In Graves' disease, and in some cases of chorea, the whole right ventricle seems violently thrown against the chest-walls with a large and forcible impulse; the impulse, too, being in the normal locality, not the large diffuse beat of dilatation a rib or so lower than natural. Certain it is that, not uncommonly, a violent action of the heart exists where the pulse is small, and even unusually constricted. This condition is common in women. It is evident, then, that, in this condition, where even the sphygmograph may not detect an unusual action in the arteries, the heart's action must be met or neutralized by some altered condition of the arteries. In some cases, too, there is no excitement in the large arteries, showing that the arterioles are not the only part affected. In hysteria we usually see this condition: the heart is acting with evident violence against no perceptible necessity. The patient is cold, the pulse small, the arteries evidently contracted, and the state of arterial tension is followed by a free flow of limpid urine, the result of an increased pressure on the glomeruli of the kidney. This condition has met with much elucidation from experiments performed by Ludwig, Thierry, the brothers Cyon, and von Bezold. (See "Carpenter's Human Physiology," 7th ed., p. 269.) In these experiments an excited action of the heart was evoked after every nerve-communication had been severed between the heart and the organism, the heart only being attached by its vessels. Irritation then applied to the medulla oblongata induced violent action of the heart, increasing its pulsations in rapidity. When only a small portion of the nerve-supply, the accelerator nerve, was left, there was increase of power as well as of rapidity—i. e., typical palpitation.

These experiments have thrown much light on the pathogeny of nervous palpitation, and from them we can easily see how and when long-continued tissue-changes will result. Thus is produced the nervous hypertrophy of writers. When, then, we find the arteries unaffected by the heart's action, it is evident that that action is met or neutralized by a condition existing in the arteries. That this condition is connected with vaso-motor changes in the calibre of the arteries and arterioles we are fast learning to see. Thus, in nervous hypertrophy we see the effects of opposition offered to the flow of blood continued for some time. In nervous palpitation we see evidence of an extra demand on the heart, and of action to meet it. In nervous palpitation we are no longer driven to imagine a tumultuous action of the heart's fibres against each other—a condition which it is not easy to imagine, much less to offer any proof of. In the uterus sometimes is seen a want

of synchronicity between the action of the different fibres, which was supposed to resemble palpitation; but even then it was merely a spasmodic action of a few fibres, not a tumultuous action of them all. If there is this antagonistic action in the fibres of the heart, it is certainly, so far as I know, unique, and foreign to the action of all other collections of fibres. In fact, there appears an inherent improbability in the possibility of its existence even; and such an explanation can only be admitted in default of any other one, and when every other known cause has been looked for and found wanting. Such an association is not associated with scrutiny, but with the want of it. I believe we will find that we can no more have a spontaneous, uncalled-for palpitation than we can have an uncalled-for, spontaneous hypertrophy, though not long ago that was supposed to be a common occurrence. As hypertrophy has been found to be a compensatory change, so will palpitation be found to be merely a symptom of over-taxation, and that only.

As palpitation occurs in structurally altered hearts on exertion, so it will be found, in nervous affections (so called) of the heart, to be the evidence of the heart's struggling against some opposition offered to the flow of blood. It is scarcely credible that palpitation can be connected with what is so obviously effort in the one case, and be simply an evidence of excess of power in another case. That palpitation may be occasioned by external agents, as nicotine or white hellebore, which French soldiers used to take to stimulate heart disease, or any other agent which will disturb the nerve-balance, is as unquestionable as that it may also be relieved by other external agents. Thus, though palpitation may be allayed, and a partial palsy produced, by morphia or prussic acid, the remedies which are in most repute are diffusible stimulants, digitalis, and belladonna. Experiments on the frog have convinced me of what my clinical experience had long taught—namely, that digitalis and belladonna are really cardiac tonics—that is, they aid the ventricular contraction. They thus enable the heart to act more powerfully against the resistance offered, and in evercoming it the heart becomes quiet, regular, and normal; the quiet action or ability to act has taken the place of tumultuous effort; the ventricle can now contract without the visible effort—palpitation. That the effect of these agents is not to paralyze the heart's efforts is evident from the increased strength which is obtained by their exhibition. The relief is not due to their palsying effort, but to their aiding contraction.

Palpitation may be due to a call on the right ventricle, where the excessive action (if it were so) of the ventricle would not cause any effect in the radial pulse, or systematic arteries. But to meet the question of palpitation by attributing it to an activity of the right ventricle only, in cases where effect on the arteries may

be wanting, is simply to shirk the broad issue. We know that the symptoms of over-action and demand on the right ventricle are widely different from those of simple palpitation; and that a totally opposite series of symptoms are then presented. We can scarcely, then, attribute palpitation to an over-action of the right ventricle only. That we may have a strong action of the right ventricle evoked when there is no stress upon the left ventricle, is true; but in that case again it is effort to overcome obstruction. The fibres of the heart are, in many instances, common to both ventricles, and excited action in one cannot exist without an approximating condition of the other ventricle.

In considering the question of nervous palpitation without corresponding effect upon the arteries, we must remember that the cardiac ganglia act against the inhibitory action of the vagus, as well as against the blood-column. It is possible, then, that there may be a disturbance of the balance between them. But then there would be a long irregular systole, as is seen when the balance is disturbed by poisons. In this condition the muscular fibres can take no part, except in acting in accordance with the nerve-force brought to bear on them. But in this disturbance of the nerve-balance the action is irregular, slow, and intermitting, according as some ganglia are more or less acted upon, and bears no resemblance to palpitation. Neither does galvanizing the vagus, as done by Weber, act in a manner at all analogous to palpitation. There is arrest of contraction, with one or two powerful beats on cessation of the stimulus; but this is not palpitation.

In palpitation from dreaded loss of blood, as in uterine hæmorrhage, we have what may truly be called over-action, by a reduction in the opposition offered to the ventricular contraction; the ventricular action is not excessive, but the blood no longer offers its wonted opposition. Now, muscular action must produce results either in overcoming opposition offered, or in natural contraction of itself—i. e., spasm. When, then, in this condition the muscular fibres are less distended by influx of blood, the energy is manifested in abnormal contraction, and ends finally in confirmed systole, as occurs in animals bled to death. The heart is here firmly contracted until it is impossible to contract further, but during this time the animal has died. Muscular action cannot go on without result; and if we have an action in the muscular fibres which is not met by some opposing force, unnatural contraction, or spasm, must ensue; and if palpitation were truly over-action of the heart, it would be one of the most dangerous and fatal of conditions. The further the inquiry is pushed, the less evidence can we find in favor of palpitation being over-action of the heart: it is a laborious effort, either from increased demand on the heart, or unfitness in itself. The heart, when its integrity is impaired or it is exhausted by effort, palpitates—i. e., a laborious

evident effort takes the place of the steady normal condition. If the obstruction offered is not at first sight apparent, it is nevertheless there. Muscular action cannot be barren in results: the ventricular action must either be apparent in the arteries, be neutralized by some condition existing in them, or end in self-contraction.

Palpitation, as a temporary evidence of over-taxation, may be engrafted on chronic conditions of acknowledged failure of power. Thus, in valvular disease, or dilatation, we may have irregularity, or even intermittency, as persistent evidences of cardiac asthenia, and along with this an enfeebled general condition: that a balance has been struck by the lowering of the general condition to meet the heart's enfeebled state. On this we may have implanted palpitation on exertion, as evidencing a temporary overthrow of that balance; no pathological condition is more common in fact. If, then, palpitation were truly over-action of the heart, the sufferer ought to feel more equal to exértion during its occurrence; it ought to restore again to him that power the want of which has so crippled him. In asthenic conditions palpitation ought to be a tonic, and it ought also to occur most frequently among the robust and those accustomed to exertion;—i. e., palpitation ought to occur when the heart has not its accustomed exertion to undergo, during general quietude. Whether such is the case, or palpitation is found to occur on or after exertion in asthenic conditions, I will leave to others to decide, as it is a question of fact. My own experience has been unequivocal. As not being normal action, it must be connected with either excess or deficiency of power. As to whether it is associated I leave to our common experience. If it be allowable to anticipate and pry into the future, it may safely be predicted that in time we shall come to learn that palpitation is as surely the evidence of over-taxation of the heart's powers, as we have learnt that cardiac hypertrophy is a compensatory growth, the result of a persistent call upon the heart for augmented effort. "It must be recollected that, in every organic disease of the heart, when palpitation becomes extremely violent and prolonged, both the impulse and the sounds may be diminished: in other words, the heart becomes gorged and incapable of adequately contracting on its contents, sometimes yielding a struggling convulsive impulse, with little sound and a feeble pulse, and, in an ulterior degree, especially during dissolution, scarcely producing either impulse, sound, or pulse. Suffocative dyspnœa, lividity, and extreme distress, are always concomitant symptoms." So wrote Hope, even twenty years ago.—*London Lancet.*

Leeds, July, 1870.

Judge Thayer's Charge in the Case of Haire vs. *Reese.*

We quote from *The Legal Intelligencer* of November 4, 1870, the following charge of Judge Thayer, in the case of *Haire* vs. *Reese*, a full account of which appeared in our last number (see page 73). It seems to us imporant that the profession at large should be made acquainted with this document, which might serve as a model, both for skill in summing up the essential facts of the case, and for the dignified tone of consideration for the medical profession which pervades it.—*Med. Times.*

WILLIAM C. HAIRE *vs.* JOHN F. REESE, M.D.

1. The implied contract of a surgeon or a physician who attends a patient is, not that he will certainly effect a cure, but that he will use all known and reasonable means to accomplish that object, and that he will attend his patient carefully and diligently. His relation to his patient implies that he possesses, and will employ in the treatment of the case, such reasonable skill and diligence as are ordinarily exercised in his profession by thoroughly educated surgeons or physicians; and, in judging of the degree of skill which he contracts to bring to the service of his patient, regard is to be had to the advanced state of the profession at the time.
2. No presumption of the absence of proper skill and attention arises from the mere fact that the patient does not recover, or that a complete cure was not effected.
3. On the part of the patient, it is his duty to conform to the necessary prescriptions and treatment, if they be such as a surgeon or physician of ordinary skill and care would adopt or sanction; and if he will not, or, under the pressure of pain, cannot, the surgeon or physician is not responsible for injury resulting therefrom.
4. When malpractice, or want of skill or proper attention, is charged against a physician or surgeon, the burthen of proving it lies upon the person who alleges it.

GENTLEMEN OF THE JURY:

The plaintiff has brought this action against the defendant, Dr. Reese, for alleged malpractice as a physician and surgeon. The grounds upon which he alleges he is entitled to sustain this action for damages are, that the defendant treated him unskillfully for his injuries, and that he did not give that diligent care and attention to his case which it was incumbent on him to extend to him, and which he had a right to expect. That is the question which you are to determine by your verdict.

The history of the case appears, from the evidence which is before you, to be this: On the 2d of February, 1869, the plaintiff, who is by trade a house-painter, was engaged in painting the outside of the House of Refuge, in this city, when the jack upon which he was standing accidentally gave way, and he was precipitated to the ground, a distance of twenty-eight feet, his body striking violently against a fence in its fall. The defendant, who is the attendant physician of the institution, was immediately sent for, and he came promptly to his assistance. As soon as he

arrived, he proceeded to take up the arteries in the head, which had been cut by the fall, and to stanch the bleeding of his wounds. When that was completed, he proceeded to examine the plaintiff's hip, in which he was suffering great pain. The plaintiff groaned with pain under the examination, and the doctor thereupon advised that he should be removed at once to his own home, where he could be better provided for, and where a more thorough examination could, with greater facility and less pain to the patient, be made. At the special request of the plaintiff he consented to attend him, and went in advance of the plaintiff to his home, in a distant part of the city, in order to prepare his family for the bad news which awaited them, and to make proper preparations for the reception of the patient. When the latter arrived, he was carried, by the doctor's directions, into the sitting-room and laid carefully upon a bed. The doctor then etherized him, in order to enable him to endure the examination to which he was about to subject him. He then proceeded to make a thorough examination of the injured parts, and, contrary to his own expectations, as he says, found, after making this critical examination, that there was neither fracture nor dislocation of the bones. After administering an anodyne to him, and directing an anodyne liniment for the hip, he left him for the night. The next day he visited him again, and made another careful examination of the hip, according to the doctor's testimony, but again found no evidences of fracture or dislocation. He prescribed liniments and anodynes, and directed him to be kept in a quiet condition. The doctor continued to visit him daily for a considerable time, making twenty-one visits in all. On the 24th of February, about three weeks after the accident, at Dr. Reese's suggestion, Dr. Agnew was called in to a consultation. He came, and made a thorough examination of the injured part. He resorted to every means known to surgery to ascertain if there had been a fracture. You will recollect the details of that examination, given to you by Dr. Agnew himself. The patient was first examined in a recumbent position. The parts were carefully manipulated and turned about; but there was no crepitation,—that is, no sound of grating of bones,—which is usually detected immediately by the practiced ear of a skilful surgeon, where a fracture has occurred. The limbs were carefully measured and compared with each other; measurements of various kinds, and in different directions, were made, to ascertain whether the injured leg had undergone any shortening. The patient was then placed in an erect posture and again examined. His leg was swung backward and forward. In short, after subjecting the limb to all the tests usually applied in such cases, Dr. Agnew, as he has testified, was convinced that there was neither fracture nor dislocation. Dr. Agnew has stated in his testimony, in view of this thorough examination to which he subjected the

plaintiff, that if there then existed a fracture it could not be discovered by any human means. Dr. Reese made his last visit to the patient on the 10th of May. For the professional service which he rendered he has never received a dollar. On or about the 6th of August following, the plaintiff called upon Dr. Agnew at his office. Dr. Agnew then observed that there had been some shortening of the leg. When asked by Dr. Agnew when that shortening had commenced, he replied that "it was after he had got up to go about on crutches." Dr. Agnew advised him to get a high-heeled shoe, and to dispense with crutches. He then went away. He rewarded Dr. Agnew for his services by bringing a suit against him also. Subsequently he went to see Dr. Gross, at the Jefferson College clinic, who prescribed an ointment for his leg; whereupon the plaintiff accused him of having poisoned him. He went also to see Dr. Duffie, who advised him to throw away his crutches and to get a high heel to his shoe. While Dr. Reese was attending him, he consulted other persons without informing him of it, and applied to his leg various nostrums which they recommended. He now charges Dr. Reese with the shortening of his leg, and seeks to make him responsible for it. You are to decide whether his charge is just and true or not.

Gentlemen of the jury, before I refer to the evidence in the cause, I will direct your attention to certain principles of law which are applicable to such investigations.

The implied contract of a surgeon or a physician who attends a patient is, not that he will certainly effect a cure, but that he will use all known and reasonable means to accomplish that object, and that he will attend his patient carefully and diligently. His relation to his patient implies that he possesses, and will employ in the treatment of the case, such reasonable skill and diligence as are ordinarily exercised in his profession by thoroughly educated surgeons or physicians; and, in judging of the degree of skill which he contracts to bring to the service of his patient, regard is to be had to the advanced state of the profession at the time. The defendant in this case was bound to use reasonable skill and diligence to effect a cure; and reasonable skill and diligence means such skill and diligence as educated and faithful surgeons or physicians ordinarily employ.

No presumption of the absence of proper skill and attention arises from the mere fact that the patient does not recover, or that a complete cure is not effected. God forbid that the law should apply any rule so rigorous and unjust as that to the relations and responsibilities arising out of this noble and humane profession! The medical man who is called to attend a patient undertakes to possess such knowledge and skill as are usually and commonly possessed by educated physicians, and to apply that skill and knowledge with all due diligence and care for the benefit and

advantage of the patient. If his performance comes up to that standard, he has discharged his duty and is not responsible for results. On the part of the patient, it is his duty to conform to the necessary prescriptions and treatment, if they be such as a surgeon or physician of ordinary skill and care would adopt or sanction; and if he will not, or, under the pressure of pain, cannot, the surgeon or physician is not responsible for injury resulting therefrom.

When malpractice, or want of skill or proper attention, is charged against a physician or surgeon, the burthen of proving it lies upon the person who alleges it. In the absence of satisfactory proof to establish such a charge, the presumption is that he was competent for the task which he undertook, and did his duty to the best of his ability. This is the rule of common sense, and the rule of law upon this subject. The burthen of proof, therefore, in this case, as in all similar cases, is upon the plaintiff. You are not to rush to conclusions detrimental to the reputation and interests of the defendant without competent proof. You are to decide the case by the evidence. You are sworn to give a true verdict according to the evidence. Your consciences must be satisfied by the evidence that the plaintiff's case is proved, before you can be justified in finding a verdict against the defendant. And I will add that it is your duty to weigh the evidence carefully, and to decide the cause according to the weight of the evidence.

Having thus pointed out the rules of law which are applicable to this inquiry, I will now proceed to make some references to the evidence which has been given, reminding you, at the same time, that you are the exclusive judges of the facts, and with you must ultimately rest the responsibility of deciding the cause.

The charge made by the plaintiff, as he has attempted to maintain it by the evidence, is that the defendant mistook the nature of his injury. He says that his thigh-bone was fractured, whereas the defendant assured him that it was not, and treated him as if it were not, the consequence of which was, as he alleges, the shortening of his leg. The proof upon which he relies to show that there was a fracture is, in the first place, the evidence of certain witnesses; and, in the second place, he says that the fracture is proved by the shortening itself. Now, it is apparent, from the testimony of all the surgeons who have been examined,—as well the plaintiff's as the defendant's witnesses,—that, in consequence of an injury such as the plaintiff received, shortening of the limb may result either from a fracture of the bone or from what is technically called *interstitial absorption*,—that is to say, the absorption of the extremity or neck of the femur, or thigh bone, a result frequently arising from a violent contusion. If you believe the leg was shortened, then it will be proper for you to inquire whether it was the result of an actual fracture, or of absorption

taking place in consequence of a contusion; because you will observe that unless there was a fracture the plaintiff's allegation of mistake or neglect on the part of the defendant in not ascertaining that fact is not made out. Let us, therefore, examine the evidence upon this point.

The plaintiff himself says, in his testimony, very positively, that the bone was fractured. Now, it is for you to say how much weight is to be given to that statement, in view of the other testimony in the case. You will consider whether he could probably determine that point with as much certainty as the surgeons who professionally examined the limb. You will consider whether his assertion upon this point is of as much value as the testimony of the surgical experts who examined him. To me it appears a question much more difficult to be decided with certainty by the patient himself than by those who, from long experience and education, are accustomed to ascertain such facts by the scientific tests which they are accustomed to resort to in order to determine it. But the value of his testimony I leave entirely to you.

The first witness he called upon this point to sustain his own assertion was Dr. John Hirst, who is a graduate of the College of Surgeons of Edinburgh. He testified that he examined the plaintiff about two years after the accident occurred. He told him that he could do nothing for him; that he had no doubt that his case had been correctly treated, from the character of the gentleman who had attended him. He casually expressed the opinion, he says, that the leg had been fractured in the neck of the thigh-bone, and he formed that opinion, he says, from the shortening of the limb. According to his testimony, he based his opinion on that circumstance and what he had heard of the history of the case; he did not measure the limb. He further said that concussion may induce disease of the articulating head of the thigh-bone, resulting in interstitial absorption; and that will occasion a shortening of the limb. He further said that he thought the shortening was owing either to fracture or interstitial absorption. As a general rule, the limb would be very soon shortened by a fracture after the injury was received, but if shortened by absorption, the shortening would come on gradually. He also said that if he examined a patient and found that there was neither crepitation, inversion of the limb, nor shortening, he could not say there had been a fracture. Dr. Hirst does not appear, by the evidence, to have examined the plaintiff by means of the usual scientific tests described by the other surgeons. He looked at it two years after the accident, and gave a casual opinion, as he himself expresses it, founded upon a comparison, by the eye, of one leg with the other, and upon what he had heard of the history of the case. That appears to have been all

the examination he gave it. It is for you to settle the weight and value of his testimony on this point.

The next witness called by the plaintiff was Moses Stevenson, who says he graduated in medicine in 1870, after studying two years. He says he examined the plaintiff's leg last winter, and believes that it had been fractured. I do not consider it worth while to dwell upon the testimony of this witness. You will recollect the exhibition which he made upon being cross-examined, saying, among other things, that "the head of the femur may be *crepitated* by absorption." In my judgment, his testimony is not worth considering, and was in the highest degree discreditable to himself. I dismiss him, therefore, without further comment.

The next witness called by the plaintiff was Dr. Joseph D. Scoles, whose testimony appeared to me to be both clear and candid. He says that he formed the opinion that the hip-bone had received an injury which occasioned the shortening of the limb; that this shortening may have been caused either by fracture or absorption, and that it is impossible for him to say which.

I have now given the substance of the whole of the plaintiff's testimony upon this subject of fracture or no fracture.

On the part of the defendant, Dr. Reese (the defendant) testified in great detail to the nature of the examination to which he had subjected the plaintiff immediately after the happening of the accident. I will not take up your time by going over it, for I am sure you will recall it. And after completing that examination, which appears, by his own statement, to have been very carefully and deliberately made, he came to the conclusion that there had been neither fracture nor dislocation.

Dr. D. H. Agnew, the distinguished Professor of Operative Surgery in the University of Pennsylvania, testified that he examined the plaintiff's limb about three weeks after the accident, and applied every test known to surgical practice to ascertain whether there had been a fracture, and was clearly of opinion that there was neither fracture nor dislocation. You will remember the description he gave you, at considerable length, of that examination, and of the various methods resorted to by him to determine the fact. He said that if there was a fracture at that time it could not be discovered by any human means. He says, moreover, after listening to the details of the treatment of the patient by Dr. Reese, that it was in all respects skilful and proper.

Dr. Gross, the eminent Professor of Surgery in Jefferson College, and a gentleman of great experience in the profession, testifies that he examined the patient at the close of a clinic, and came to the conclusion that the injury to the leg was the result of severe contusion. He further says that, if the bone had been fractured, the shortening of the limb would, beyond all question, have taken place within twelve or fifteen days after the accident. He

also corroborated, to the fullest extent, the opinion of Dr. Agnew in regard to the skilful and judicious character of the treatment given to the plaintiff by Dr. Reese.

Dr. Duffie, also called as a witness by the defendant, and having also examined the plaintiff some time since, was distinctly of opinion that it was a case of absorption of the thigh-bone, a result which, he says, no remedies known to surgery can cure.

Dr. John H. Brinton, a well-known surgeon of long and large experience, testified, after hearing at length the treatment to which the plaintiff had been subjected by the defendant, that, in his opinion, it was perfectly correct and judicious, and said he knew of no other treatment for such a case.

The testimony of Dr. R. J. Levis was to the same effect. He says that the treatment was skilful and proper.

All the surgeons who were examined agree that, if there was no fracture, the treatment was perfectly proper; and they all agree that the only evidence of fracture was the shortening of the limb, and that shortening ensues with equal uniformity from absorption —the consequence of contusion—as from fracture, the only difference being that in the former case it comes on at a much later period in the history of the case than in the latter. You have then, on the one side, the positive statement of the plaintiff and the opinion of Dr. Hirst, founded upon an examination certainly not critical in its character, made two years after the accident, and upon what he had heard about the case. You have, upon the other, the opinions of Dr. Agnew, Dr. Gross, Dr. Brinton, Dr. Duffie, Dr. Packard, Dr. Levis, and Dr. Reese, the defendant.

You have also the important fact that there is no evidence that any shortening took place for a considerable period after the accident. Dr. Agnew is positive that there was no shortening when he first examined the plaintiff about three weeks after the accident, and that he did not observe that it had taken place until the plaintiff came to his office in August, about six months after the accident.

You ought to decide the case according to the weight of the evidence. If you are of opinion that the plaintiff's leg was not fractured, I do not see that there is any evidence that the case was not properly treated by Dr. Reese. I have a right to say, and I conceive it to be my duty in this case to say, that I see no satisfactory evidence that the treatment of Dr. Reese was not, in all respects, skilful, wise, humane, and proper. But I leave all the evidence to you, and you will decide for yourselves.

If, after looking over the whole case and weighing all the evidence, and applying the rules of law regulating his responsibility, to which I referred in the commencement of my charge, you conscientiously come to the conclusion that the defendant was guilty of any negligence or want of ordinary care and diligence resulting

in injury to the plaintiff, of course you will not hesitate to say so by your verdict. But if, on the contrary, you come to the conclusion that the plaintiff's complaint is altogether unfounded, then it concerns not only the interests of the parties in the present cause, and not only the interests of public justice, but also the established medical fame of this city (a fame established by many examples of men great and distinguished in this profession, who have here lived and labored and died), that you put an end, so far as you can, to experiments, by unjustifiable lawsuits, against skilful, attentive, and humane physicians.*—*Med. Times.*

Editor's Book Table.

[Note.—All works reviewed in the columns of the Chicago Medical Journal may be found in the extensive stock of W. B. Keen & Cooke, whose catalogue of Medical Books will be sent to any address upon request.]

Galvano-Therapeutics. The Physiological and Therapeutical Action of the Galvanic Current upon the Acoustic, Optic, Sympathetic and Pneumogastric Nerves. By William B. Neftel, M.D. New York: D. A. Appleton & Co., 90, 92 and 94 Grand street. 1871. Pp. 191.

Dr. Neftel has had unusual opportunities for observation in the great hospitals of Europe, especially at St. Petersburg, and has devoted the greater part of his attention to the study of nervous diseases. He announces that he is now engaged in the preparation of an elaborate work in two volumes, the first being a treatise on diseases of the nervous system, and the second treating of the galvanic current in its relation to physiology, medicine and surgery. The present essay is a part of the last work, and appears now in print at the request of several aural surgeons and other professional gentlemen.

A perusal of this little book is recommended to those who desire

* It will be remembered that the jury, without leaving their box, returned a verdict for the defendant; the costs to be paid by the plaintiff.—Ed.

further insight of this obscure subject, or to make practical application of electro-therapeutics.

Physics and Physiology of Spiritualism. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System, and Clinical Medicine, in Bellevue Hospital Medical College, etc., etc. New York: D. Appleton & Company, 1871. Pp. 86.

The basis of this monograph is an essay contributed to the North American Review in April, 1870. It has been thoroughly revised, with large additions.

The author, as is well known, belongs to the advanced school of physiologists who are not "fettered by theological and metaphysical dogmas." He recognizes mind as a force the result of nervous action. Of its several qualities, consciousness resides exclusively in the brain, but the others are developed with more or less intensity by other parts of the nervous system; and in the fact that the spinal cord and sympathetic ganglia are possessed of mental power he finds an explanation of some of the most striking phenomena of spiritualism.

Dr. H. refers to animal electricity and magnetism—gives an amusing illustration of one Dr. Von Vleck's reproduction, by sleight-of-hand, of the performances of the Davenport Brothers, and then discusses more at length natural and artificial somnambulism. In hypnotism the phenomena are not those of pure somnambulism, but include, in greater or less degree, hysteria, catalepsy and ecstacy. These conditions are then discussed and illustrated. The dangerous voluntary power possessed by some persons, of voluntarily producing hallucination of various kinds, is cited.

The alleged spiritual phenomenon of levitation, including the rising in the air of tables, chairs, musical instruments and even of the human body itself, is then examined, and both historically in witchcraft, and at the present time in spiritualism, are referred to either (or all) hallucination, legerdemain, or actual fraud.

Admitting all the assumed phenomena of "spiritualism," the author rationally concludes that "there would be no proof that spirits had anything to do with them." On the contrary, the

hypothesis of spirits is the least plausible which could be suggested. The phenomena and the explanation have nothing in common.

For ourselves, we have to say of books of this sort, that while they may help to keep people from falling into the quagmires of spiritualism, they will not extricate any of its unfortunate victims —for, "men are never reasoned out of opinions they were never reasoned into."

Specific Medication and Specific Medicines. By JOHN M. SCUDDER, M. D., Professor of the Principles and Practice of Medicine in the Eclectic Medical Institute (Cincinnati), etc., etc. Cincinnati: Wilstach, Baldwin & Co., Printers. 1870. Pp. 253.

The larger portion of this treatise has appeared in monthly articles in the *Eclectic Medical Journal*, and hence will require no introduction to the readers of that paper. The author flatly contradicts the dogma, "There are no specifics in medicine," and yet claims that his theory has "no alliance with the homœopathic specific medication." *Ait:* "I contend that a drug is a specific remedy: first, because it influences uniformly and directly the part or function diseased; and second, because it *opposes* such diseased action. I would, therefore, write the law of cure *opponens opponenda*, instead of *similia similibus.*

The author laudably lays it down as "an axiom from which it is never safe to depart, that—No medicine should be given, unless the pathological condition and the indications for its use are clearly defined. It is much better to employ a *placebo*, than run the risk of doing harm by medication." In which we pretty much agree with him.

The action and uses of four or five hundred (mainly vegetable) articles are described, as illustrative of the author's views, and the potency of specifics, particularly those which rejoice the hearts of our Eclectic (late "Botanical") fellow-citizens, are concisely written down. We confess to a latent fear that the relations of some, at least, of the number to "the pathological condition" are not "clearly defined."

The Transactions of the American Medical Association. Instituted 1847. Vol. XXI. Philadelphia: Printed for the Association. Collins, Printers, 705 Jayne street. 1870. Pp. 612.

The proceedings of the Association having been quite fully detailed in the No. of the JOURNAL for June last, need no further notice at this time. The current volume is produced in good style, unimpeachable typography, excellent paper, and the essays on Median Lithotomy, Plastic Surgery, Blood Corpuscle, and Aneurism, (the latter, especially) well illustrated.

The report of R. C. Hamill, M.D., on the Diseases of Illinois, has prefixed an outline map of Chicago, to render clear his exposition of the prevailing diseases of this city.

The next meeting of the Association, it will be recollected, is appointed at San Francisco.

A Practical and Systematic Treatise on Fractures and Dislocations. By A. JACKSON HOWE, M.D., Professor of Anatomy in the Eclectic Medical Institute. Cincinnati: Chas. F. Wilstach & Co. 1870. 8vo, pp. 424.

With good type, tolerably fair imprint, poor paper, and exceedingly crude wood cuts, the book is not particularly creditable to Cincinnati or the publishers. But its artistic merits are in harmony with the author's efforts, who, while he has produced another volume of so-called "Eclectic" medical literature, and thus fulfilled undoubtedly his purpose, has, in the field of science, achieved the same degree of success that his publishers have in their department of labor and enterprise.

Neuralgia Mixture.

℞. Quinia Sulph., two drachms; Ferri Pruss., two drachms; Fl. Extract Aconite, two drachms; Fl. Extract Gelseminum, one drachm; Neutralizing mixture, one pint; Syrupus Simplex, two pints. Mix. Dose, one teaspoonful every two hours, for twenty-four or forty-eight hours.—*Med. Indep.*

Pamphlets.

A Sketch of the Early History of Practical Anatomy. An Introductory Address by Wm. W. Keen, M.D., Lecturer on Anatomy and Operative Surgery in the Philadelphia School of Anatomy, etc., etc. Published by the class. Philadelphia. 1870. Pp. 31.

In this address Dr. Keen has collected much curious and valuable information. Although Vesalius of the 16th century is the reputed father of anatomy, Herophilus and Erasistratus, 500 years before Christ, were zealous cultivators of the science of human anatomy, and are even charged with vivisections of human beings. Vesalius fled for his life on a similar charge, and lost his life by shipwreck in so doing.

Even in these days there is a vulgar idea that the profession indulge in a similar Parrhasian practice. The first public lecturer on anatomy in Alexandria, Clot Bey, 1700 years after Herophilus and Erasistratus, was stabbed with a poniard by a student when he first opened the thorax of a body. The blade slid over the ribs, and Clot Bey, perceiving that he was not seriously hurt, took a piece of plaster from his dressing-case, and, applying it to the wound, coolly observed to his class:

"We were speaking, gentlemen, of the disposition of the ribs and sternum, and I now have the opportunity of showing how a blow directed from above has so little chance of penetrating the thorax," and calmly went on with his lecture.

Fancy Prof. R. so situated.

The first dissections of modern times were made at Bologna, two centuries before Vesalius—but the custom soon fell into neglect. The first Monro says that in his student-days early in the last century his Scotch anatomy was limited to seeing the human body dissected once in two or three years. In the time of Sir Wm. Hunter, at the *end* of the same century, practical anatomy was unknown to the mass of the profession until he established his celebrated Great Windmill School.

As lately as 1866, Prof. Struthers, of Aberdeen, wrote: "Less

than a generation ago, it was not an uncommon thing to find medical practitioners who had never dissected."

According to Dr. Keen's personal experience even now the majority of our students do not dissect the human body more than once. The slow progress of the practice, the legal restrictions and penalties, popular prejudices and resulting poverty of material and ingenious devices to procure it, are detailed, showing that human nature is much of the same pattern in all ages and countries. Hunter procured the body of the Irish giant, O'Brien, (whose skeleton, eight feet and four inches, is now in the Hunterian Museum) by bribing its guards, to the tune of £500, to permit him to steal it. Everybody has heard of Burke and his atrocities, which from that time even till now have caused the hairs of many a "loafer" to stand on end, but few are aware of the fact that this case led to a gradual improvement in the laws relative to the *subject*, until at last there is a remote approximation to justice and common sense in practice.

Not the least interesting portion of the address is that part which is devoted to the methods of preparing anatomical specimens, general and minute injections, preserving, embalming, etc., but space will not permit further notice at the present time. The lecturer has given us a very readable production, which we have no doubt his class fully appreciated.

Annual Report of the Surgeon-General U. S. Army. 1870.

This gives the annual statistics of the department. A few items will be of general interest:

"While the rate of mortality from wounds and injuries among the *colored troops* agrees with that among the white, their rate of mortality from disease is nearly double."

171 legs, 112 arms, 6 feet, and 12 apparatus, were furnished during the year.

The whole of the manuscript for the surgical volume of the first part of the Medical and Surgical History of the War, authorized by the Act of Congress, March 3, 1869, is now prepared, and a large amount of other valuable matter for the second volume of the Medical part is nearly printed.

A large and uniform increase of the collections in the Army

Medical Museum is reported. There are now 13,502 catalogued specimens. Great success has been attained in the microscopical section in the direction of photomicrography. The collection of crania includes 897 specimens, with 34 skeletons.

A liberal system of interchange of specimens with American and foreign institutions has been successfully organized.

There were 17,669 visitors registered during the year.

There are two vacancies as surgeons and 46 assistant surgeons; this has required the employment of contract surgeons, but it is thought better to have the vacancies filled.

In an accompanying pamphlet we find a series of extracts from letters, reviews and bibliographical notices of the publications of the Surgeon-General's office, all of which unite in expressions of high commendation of what has been done and is now being accomplished in this department.

We take especial pleasure in saying that in our opinion the work in progress, specimens of which have been from time to time made public, is one in itself of the very highest national importance, and which reflects the greatest credit upon the profession so ably represented by Surgeon-General Barnes and his excellent corps of assistants.

We repeat our former earnest hope, that no ill-timed and perverted ideas of contraction of expenditure, may prevent full and prompt publication of the inestimably valuable matter prepared and in course of preparation.

Transactions of the New Hampshire Medical Society (*Eighteenth Anniversary.*) Held at Concord, June 21 and 22, 1870.

This venerable Society still shows evidences of vigorous vitality. Several valuable papers are reported, among which we notice an interesting Medical History of New Hampshire, by A. B. Crosby, M.D.

We have marked several passages from this volume for reproduction in the JOURNAL.

Non-Professional Exchanges.

The Scientific American

Grows upon our affections constantly. We had the general idea, previously to being its regular readers, that it would be of little interest save to inventors and manufacturers Belonging to neither of these classes, nevertheless we find but few articles in its crowded columns and large space that do not interest us. It is the first paper picked up, and the last one laid down by patients waiting in the office. It is, briefly, exactly what it purports to be, "A Weekly Journal of Practical Information, Art, Science, Mechanics, Chemistry and Manufactures," profusely illustrated, and published by Munn & Co., 37 Park Row, New York.

The American Chemist.

A Monthly Journal of Theoretical, Analytical and Technical Chemistry. Edited by Chas. F. Chandler, Ph. D., and W. H. Chandler. Published by William Baldwin & Co., 434 Broome street, New York.

We have inadvertently omitted to announce this paper, which the enterprising proprietors now publish as an original journal in lieu of reprinting, as heretofore, an English copy.

Whoever would keep pace with the beautiful science of chemistry in all its departments, can find in this journal just what he wants. Each No. contains forty pages or more of reading matter in quarto form, with "cut leaves." $5 a year; 50 cents single No.; specimen copies 35 cents.

Harper's New Monthly Magazine

Enters upon its Forty-Second Volume with the January No. of 1871. Its table of contents is, if possible, unusually rich, and its illustrations profuse and of high artistic excellence. Personally, we think Harper's the best, as it most assuredly is the most readable of the magazines. Useful information is adroitly commingled with fiction and fun, so that the most dissipated reader *will* get some of the former, *nolens volens*.

The Magazine alone, $4 a year. The same each for the Weekly and Bazar. Either two $7, or the three $10. Draft or P. O. Order to Harper & Brothers, New York.

College Courant—Yale.

Charles C. Chatfield & Co, New Haven, Conn.; $4 a year. The *Courant* fully sustains the character we gave it last year. It is ably edited, and ranks among its contributors names of the highest distinction. The associations of college life are those which we last of all could "willingly let die." Wherever your *Alma Mater*, "Yale" is nevertheless no remote relative, and the *Courant* keeps itself and its readers well posted in the collegiate and general educational affairs and news of the country.

The American Builder—

A Journal of Art—Charles D. Lakey, Editor; Stanley Waterloo, Associate. $3 per annum; single copies 25 cents. The No. (for December) of this first class and now thoroughly established monthly exhibits, if possible, continued improvement. It is brimful of excellent matter pertaining to architecture, art, insurance and miscellany.

The subscription price also entitles each subscriber to a copy of the celebrated steel line engraving, size 24×32 inches, of Washington Irving. The editor owns the original plate, and copies cannot otherwise be procured. Any of our subscribers contemplating building, would find it greatly to their advantage to read this valuable publication, so that they can with some confidence speak of "what they know about building."

Editorial.

January, 1871.

With this No. commences the *Twenty-Eighth* Annual Volume of this Medical Journal.

In looking over its files, we are proud to discover that although its editorial conduct has from time to time been committed to various hands, it has ever been ranged on the side of high-toned, legitimate medicine, has ever sustained that policy deemed best for its advancement, has condemned and attacked the little, the mean and the sordid, under whatever guise they have tried to come under the wing of the profession—it has ever been ready to recognize true progress and discovery, whilst maintaining that staunch conservatism which, previous to reception, compels innovation to prove itself reform.

Under its present management, the Journal will remain independent of all trammels, of all cliques, private interests or narrow views. It will remain the exponent of the free and enlightened opinions of the profession, to whom its pages will ever be freely open for the discussion and development of the truths of medical science.

Good faith in correspondents, and honorable candor in controversy, will ensure the largest liberty in the use of our columns.

We have no pet notions to foster, or beloved dogmas to disseminate, and had rather, by far, expose ourselves to the charge of inconsistency, than to labor with those who attempt to barricade the advance of modern science by piling up the wrecks and *debris* of the exploded "systems" of olden time.

Exact observation, careful experiment, acute perception, sound judgment—these are what are needed by each individual physician, and then let the Medical Journal make the results, by publication, common property. As yet the material is somewhat chaotic, but the architects and master-builders will, in the not distant future, afford us a temple of Æsculapius, sufficiently approximate to completion to reward the zealous labors of the workmen.

To our contemporaries in journalism, we extend thanks for the valuable "scissorings" they have afforded us in the past; to our correspondents we acknowledge indebtedness for their contributions; to our subscribers we express obligations for their generous support; to our Publishers, Messrs. W. B. KEEN & COOKE, we are grateful for the elegant dress they have given the JOURNAL, for the promptness of its issue, and the invariable courtesy which has characterized their personal association.

To each and all, we heartily tender the best wishes inspired by the advent of the NEW YEAR.

Board of Health.

It is to be hoped that the legislature about to convene at Springfield will reduce the present cumbrous machinery of this institution to a degree of simplicity consistent with a direct, speedy and economical performance of its work. Amidst all of the wheels within wheels (or rings within rings) which constitute what is called the city government, there is probably not one which turns so slowly, with so much friction, consuming so much and generating so little power, and carrying so much dead wood, as this same Board of Health.

A central power to which shall be entrusted the preservation of public health, is essential in every city, but pre-eminently so in Chicago, whose peculiarities of situation, soil, climate and population, render her so especially liable to disease, both endemic and epidemic.

The movement which initiated the idea of a Board of Health for this city was good, as were likewise the plans originally submitted to the legislature for the organization of the department, and had intermeddlers withheld their clumsy fingers from attempts to reform (deform?) it, we should have had at this time, in all probability, an efficient health department, which would have been creditable to its originators, beneficial to the city, acceptable to citizens, and an aid to science, instead of one which is the negative to all these characteristics, and indeed seems to subserve no other purpose than to provide employment for a certain number of very worthy citizens, and to enable one enterprising gentleman (the scavenger) to fatten hogs.

The largest single item of expenditure is that paid to one individual for hauling food to his own pigs, for which purpose householders are required, under penalty, for neglect, to ornament their sidewalks with pails of garbage until such time as it may be convenient to the contractor to gather it.

It is not to be denied that the Board of Health has accomplished some good, for it would be difficult for thirty or forty individuals supposed to be devoted to the attainment of some end, to fail utterly in effecting something, even though infinitessimal. But that it has fulfilled a reasonable proportion of the expectations of its friends and the public, let the public odium, for which it has exchanged its original prestige and popularity, answer.

Passing over its failure as a civic institution, and considering its relations to science, as an accumulator of vital statistics, we ask for data, it furnishes "reports;" for facts, it supplies "opinions;" dissertations on civil engineering by authorities who don't know a transit from a theodolite, and upon hygiene from others ignorant of the relative values of ozone and sulphuretted hydrogen.

The Health Department comprises sufficient ability, energy and honesty (to say nothing of other qualifications) to produce valuable results, if properly utilized, but the radical defects in the system are such that it would seem impossible to evolve order out of chaos without essential changes in the organic law, for which the legislature alone is competent. W. H.

Malt Extract

Is the text of a dissertation by the associate editor of the Pharmacist, upon one of the "*Scientific Specialties*" of this prolific era, in which he takes occasion to denounce the deception practiced in the sale, under the above fascinating title of "Lager Beer" (and very poor lager too), at "only six times its retail price." Mr. Ebert's Teutonic antecedents constitute him a better judge of his national beverage than we can pretend to be "*hine illæ lachrymæ*" who, in our ignorance, pronounced the article when presented for our inspection, very bad lager. Who the "most eminent medical authorities in Europe and this country" may be, who agree that this new tonic is the best *dietetic* and *healing remedy* known to modern science, we are not informed, and think it not unlikely that there might be found those who, mistaking *notoriety* for *eminence*, would be willing to purchase the former by the barter of their (good?) names therefor. To those interested in malt extracts, we commend Mr. Ebert's article as containing about all that is worth knowing thereanent; and in discussing that portion of the subject we must take occasion to thank him for the straightforward rebuke administered to those physicians by whose aid, through their signatures to certificates and prescriptions, these nostrum-vendors are sustained. Nor is it to "malt extracts" alone that we refer, but to the whole category of "elixirs," "syrups," "medicated wines, etc.," simple and compound, which are unofficinal and also unreliable. In fact, nothing more nor less than the old curse of patent medicine under a new dress, the threadbare garment of respectability through whose "looped and windowed raggedness" the spectre of quackery is revealed.

With all due courtesy we ask the medical gentlemen, some of whom we could name if required, who specially designate in their prescriptions, the "elixir" or "syrups," etc., of some particular manufacturer, what guarantee they have of the genuineness of the article, the fidelity in preparation, or even, sometimes, acquaintance with its *reputed* formula? They must certainly admit the charge of inconsistency, in that, while careful to avoid patronizing or recommending pharmacists of doubtful repute, they prescribe preparations of whose character their only certificate is the label of a manufacturer personally unknown, backed by the

eloquence of the elegant drummer who "*would be pleased to leave a sample box of our preparations*" in your office, and who as a nuisance is only exceeded by the individual, male or female, who is "soliciting subscriptions for an illustrated life of" the Lord knows who. Moreover, the prescription or recommendation to patients of these nostrums, amounts virtually to an abandonment, on the part of the physician, of his own claims to superior skill in diagnosis and judgment in the application of remedies, and a concession thereof to the manufacturing druggist.

Gentlemen, be consistent, make your own formulæ, use remedial agents whose effects you understand, or else include in your category of therapeutical authorities, Helmbold, Radway, Mrs. Winslow, and the rest, and specify in your prescriptions, Ext. of Buchu, as well as Elixir Phosphate, Iron, Quinine and Strychnia, Ready Relief and R. R. R., along with Syrup Chloral Hydrate, and Soothing Syrup with Elixir Valerianate of Ammonia, Indian Cholagogue with Ferro-Phosphorated Elixir of Calisaya Bark, and so *ad infinitum;* and, while earnest students are endeavoring to accumulate reliable data upon which to construct a true science of therapeutics (if that be possible), do not thus encourage in your own minds the growth of empiricism, and foster in others gross quackery. W. H.

Alumni Meeting.

The Alumni of Rush Medical College will bear in mind, that their next annual meeting occurs on the day of the ensuing Commencement Exercises of the College, Wednesday, Feb. 1st., ult. The hour of meeting is 10 A. M., and the place, the lower lecture room of the college. The annual address will be delivered by the President, ABNER HARD, M.D., of Aurora. Business of great importance is to be brought before the Society.

Rush Medical College — Spring Course of Instruction.

Announcement of the usual Spring Course of Instruction will be made soon.

Medical Items, News, and Gossip.

Occasional bad effects of Chloral are being chronicled. A fatal case occurred recently at Guy's Hospital. Dr. Habershon commenting on it, said that it confirmed his opinion that Chloral, through its action on the pneumogastric nerve, tended to produce bronchial and pulmonary congestion. When there is any marked predisposition to paralysis, its use is apparently hazardous.——The *Med. Record* has an account of that rare form of disease, hydrocele in the female. The case was at first mistaken for inguinal hernia. The tumor gained the size of a turkey's egg. The contents of the sac were evacuated, and tincture of iodine injected, with complete cure.——It is recorded that continued external use of Carbolic Acid endangers nephritis, unless care is exercised. The urine often assumes a dark, almost tarry, appearance, with slight traces of albumen, but no blood. The dark appearance is supposed to be due to some of the oxidized products of the acid. The facts observed suggest careful observation of the urine when Carbolic Acid is used, either externally or internally.——The Boston City Hospital reports fair success in the treatment of old recurring ulcers, by transplantation of the skin.——A recent analysis of the water of the Nile shows it to be rich enough in saline matters to equal a first class magnetic spring. Incidentally from the same paper we learn that the Nile carries into the Mediterranean 55,000,000,000 tons of water each year, which certainly should make the neighborhood of that sea an excellent watering place.——At the present writing, the position of Admiral, vacated by the death of the lamented Farragut, has not been filled by the Porter who has borne so much evil and humiliation to the medical staff of the navy. Professionally we recommend our naval brethren not to advise Porter for "those who go down to the sea in ships" of war. It is singularly productive of flatulency.——Massachusetts declines hereafter to send delegates to the Am. Med. Association.——Surgeon Woodward, of the Surgeon General's staff, after carefully repeating many of Cohnheim's experiments, gives the opinion that Cohnheim was a conscientious observer, who had described as faithfully as possible the impressions made

upon him.——A writer in the *British Medical Journal* is confident that fever germs are especially liable to be conveyed in *milk.* The contagion of scarlatina and the origin of enteric fever, he thinks, often bear the explanation of milk poisoning, as this fluid, from the oil particles it contains, is powerfully absorbent. It rapidly acquires odoriferous principles to which it is exposed.——Dr. Hale, of Ky., reports in the *Practitioner* a case of cure of trismus nascentium under Calomel alone. The child was six days old. Two grains of Calomel were given every two hours until the bowels were freely moved, and then repeated every eight hours. ——Warm water injections are highly recommended by Prof. Albansee, in the radical cure of hydrocele.——The best test for the purity of Hydrate of Chloral, is said (*Med. Reporter*) to be a concentrated solution of potash. The pure hydrate does not color this at all, or only a feeble yellow, and gives forth the pure smell of Chloroform. If a brown color, and the smell of Chloro-acetic Acid, or other pungent gases, be developed, the article is impure and unfit for use.——*Lusus Naturæ.* A man (?) calling himself a physician (probably the "retired," "whose sands of life had nearly run out"), is now soliciting the alms of the charitable in this city, basing his claims upon his ill health occasioned by "prolapsus uteri." Can he be the brother of the woman who sometime since was pronounced by a Chicago "physician" to have "disease of the prostate gland"?——Dr. C. B. Taylor, of New York, sues Andrew Campbell for a fee of $125 for curing his son of some difficulty not stated. The parent is recalcitrant because the Doctor brought about recovery by some other method—not employing the "Swedish Movement Cure," as defendant states he agreed to do. The *Reporter* makes no comment.——Seventy-four thousand doctors in the United States—an increase of two thousand a year since 1860. The *Reporter* thinks the American people are mulcted in $100,000,000 a year for sickness, and this without computing the quack medicines sold and swallowed—at least $25,000,000 more.——The really fair looking occupant of a chair in one of the medical colleges of this city, has been most atrociously caricatured by a lithograph in one of the advertising periodicals—called (*lucus a non lucendo*) "The Arts." It is understood that the worthy victim declines to prosecute, because in a

biographical sketch, given in the same paper, he is spoken of in complimentary terms, and the writer, with admirable *naivete*, characterizes the lithograph as a good likeness, etc., etc. We tender the usual condolence.——From all accounts, the treatment of the sick and wounded in the present European war compares very unfavorably with that which was received by the same class during the recent "unpleasantness" in this country. Much complaint is made by those non-combatants willing to extend assistance, at the unfeeling, not to say brutal, manner in which their efforts are met, and the wanton waste and misapplication of supplies contributed for the relief of the unfortunate sick. Our private information coincides, fully, with what has occasionally been published on this topic by the secular press.

Loot.

Dangers of Chloral.

Dr. R. C. Shettle, physician to the Royal Berkshire Hospital, in the course of an address before the Pathological Society of Reading, after referring to Dr. Richardson's statement that under the influence of chloral formiate of soda is formed, and the coagulating power of the blood is much diminished, adds that "it is very evident that not only is passive hæmorrhage from an open vessel favored by the administration of chloral, but from the tendency which exists from the continuous administration of the drug to produce decomposition of the blood, a small loss of blood would be very possibly followed by serious symptoms. Moreover, it can scarcely be a question that the tolerance of the drug is much greater in some individuals than in others; and possibly the same person at different times might bear its administration very differently." If these views be correct, much caution would seem to be called for in using chloral in midwifery cases.—*Med. Gazette.*

White India Rubber.

White India Rubber, as used in nursing-bottles for infants, contains an active poisonous ingredient, causing sore mouth, eruption, and even death in some cases; its sale is, on this account, prohibited by law in some European countries.

Improved Test for Grape Sugar.

Fehling's test fluid, it is well known, is not very permanent, spoiling even in diffused daylight. Lowe recommends the following modification of it, which is equally sensitive, and very stable: Sixteen grammes of pure sulphate of vitriol are dissolved in 64 grammes of water. To this solution 80 cubic centimetres of soda lye, having a specific gravity of 1·34, are added at a time, avoiding any elevation of temperature, until 112 grammes have been mixed; then from 6 to 8 grammes of pure officinal glycerine are poured in till the fluid assumes a beautiful azure blue color. *Lancet.*

Infallibility.

Geo. M. Hambright, a correspondent of the *Pharmaceutist*, is "down on" the M.Ds. in an article from which we scissor this, with the single deprecatory remark, that, perhaps, in many of the instances given, the apparent errors were due to bad chirography rather than sheer ignorance. Meanwhile, brethren, mind your Ps and Qs:

"The 'infallibility of M.Ds.' does not only exist in the practice of the healing art, but also in that which is next in importance to a correct diagnosis, viz.: *prescribing*. Scarcely any detailed remarks need be made on this point, to prove how wofully deficient the lower class of M.Ds. are in this very important particular. Prescriptions that are daily filled in this city and surroundings would be more fitting *fac-similes of the exhumed hieroglyphics from the Egyptian catacombs* than an order for physic, in this enlightened age, not to make mention of the incompatibles heaped together as the *healing balm*, in terms and language that indicate that the schoolmaster is not always at home among the M.Ds. who move in aristocratic circles.

"As a rule, intelligence and science center in the large cities, and if the appended specimen-productions of the medical men of this focus are taken as paradigms of learning, what is the intellectual condition of the M.Ds. in the by-places of the State?

"The first example will be found on every nine out of ten prescriptions, where the useful article is ordered.

Aqua *d*istil.	Pulv*o* Si*e*dlitz.	Sac*k* Lactis
Pulv. Ip*i*cac:	Tr. Cardo*m*an.	Plum: Carbo.
By Carb. Potass,	Oleum *Tilgi*.	Sulph: *Ea*ther.
Tr. Val*i*rian.	*Podiphiline*,	Ol*i*um Lini
Chl*ordte* Potass:	Compt. Cath. Pillula, etc.	

"To this list may be added *aqua fluvialis*, which is frequently

prescribed by the A 1 M.Ds. in this city; surely a very disgusting medication, when '*the purity of the Chicago river*' is taken into consideration. This article is probably prescribed by some M.Ds. because they suppose it to be one of the healing remedies of the Materia Medica; and, conceding it to possess medical properties, it *may*, *possibly*, bear, in this respect, a strong resemblance to "*aqua mirabile*," with which very few M.Ds. are acquainted.

"As specimen products of second-class philomathes in medicine, allusion will be made to—

Bal: Cope*ve.*	Nitric *Either.*	*Colodien*—
Tr. Jal*op.*	Pul: *Epi*cac,	Lupolin.
Sulphatum Ferri.	Junipe*ro* Spira*t*us.	
D*iet.* Act: Plumb.	Tr. Clor*h*ide Ferri.	

"Presuming to specify third-rate M.Ds.' productions, there will be found—

1 *ons Boulson* K. P*v*	*Syr. Senneca Sneke root.*
1 " *Nither*	*Poder: Kubeabs*
¼ " T*urpentin*	B*iconbonat Soder.*

"And the doctor who wrote for Isinglass Plaster, which he returned in person, with the statement, 'that he wanted plaster with some body, thick and strong,' and, on being shown the roll of *adhesive plaster*, hurriedly exchanged *the compliment of his recipe* for that article, and left.

"As *finis* to this class the following model is given:

Recipe—Senega	oz. i.	
Syrup Scilla	"	
Morphia	"	Mix.

Dose—teaspoonful 4 to 6 hours.

"All the above examples of 'Infallibility of M.Ds.' are taken from a small file, and when compared with those of larger growth the *magnitude of error* is decidedly appalling, and speaks volumes in favor of a better training of the men of medicine, in the art which they practice."

Croup and Cubebs.

Of eight cases of angina treated with cubebs, seven recovered and one died. Thirty-four cases of croup were treated with this drug; thirteen recovered — three without tracheotomy, and ten after the operation had been performed. In twenty of the unsuccessful cases, tracheotomy was resorted to. The patients were from sixteen months to nine years old. Only six were seen in the beginning of the second stage; all these were saved. In twenty-seven cases, the operation was performed immediately after entering. Cubebs was given after the operation apparently with better effect than before.—*Gazette des Hopitaux and Ind. Jour. of Medicine.*

Belladonna in the Treatment of Typhoid Fever.

Dr. B. Kelley, of Dublin, recommends very highly the use of belladonna in treating enteric fever. He does not prescribe it until the prominent symptoms are fully developed. If the patient be an adult, his dose is from twenty to twenty-five drops of the officinal tincture of the British Pharmacopœia every four hours, but must be varied to suit ages and constitutions. He says, "It completely changes the whole character and outward manifestation of the disease. Delirium, coma and subsultus quickly vanish, and are succeeded by calmness and clearness of intellect, by natural sleep, and complete control of all the voluntary muscles. Diarrhœa is checked, and healthy, consistent evacuations are established." He gives its most remarkable power as seen in the suddenness with which patients recover their intellectual faculties, and the full control of the muscles. In stopping its use, it is necessary to do so gradually, to prevent serious consequences. All stimulants he interdicts, in every form and shape, while the patient is under the treatment of belladonna. Care must also be exercised that the patient does not get around too soon, which they are very much inclined to do while under its magical influence, and thus occasion a relapse.—*Med. Indep.*

Epidemic Diphtheria and its Treatment.

According to reports from the state of Ibraila, the epidemic of diphtheritic angina which raged in that town sixteen months ago produced 700 deaths up to the 15th of December last, of whom 298 were men and 402 women. In a population of 30,000, the gravity of the epidemic may be estimated. Perchloride of iron, given conjointly with tonics, seemed to be most efficacious, and cauterization with a concentrated solution of nitrate of silver was found very useful when the pseudo-membranous exudation was localized.—*Med. Press and Circular.*

Impotence consequent on Onanism cured by Electro-Magnetism.

Dr. Finstein, of Ulm, reports a case of this in a man aged 26, who, from the age of 15 to 18, was addicted to onanism, which he relinquished after the latter period by the advice of a companion. At the age of 23 he found himself unable to have an erection. Various remedies were tried in vain, and at last electro-magnetism with the apparatus of Erdman was resorted to, and after fifty-two applications, made twice daily, continued from 10 to 30 minutes, his powers were restored.—*Révue de Thérapeutique*, Sept., 1870.—*Med. News.*

Illustrations of Quackery.

Every week brings to California some new phase of charlatanism, proclaimed through the newspapers. The last comer announces himself as "Director of the Homœopathic Healing Institute." He has established "specific healing baths," which produce, to use his own lucid language, "A galvanic magnetic fluidum, which can be impregnated with specific healing powers, in order to communicate the same to the vital forces of the organism. The constant influx of this healing fluidum annihilates the dynamical powers of all disease, causes and animates the organic activities so thoroughly, that all disturbances are equalized, all foreign matter expelled through beneficial perspiration, and all parts of the organism brought back to the normal state of health. How beneficial this new healing method is, may be seen from the fact, that all spinal complaints, paralysis, and deformities, also the hip diseases of children, are cured by it. It eases the pains immediately, and cures the quickest female diseases that originate in loss or corruption of sap," and so forth. We think he hit the mark in the last line. Most of his patients will be troubled with "loss or corruption of sap."—*Pacific Med. and Surg. Jour.*

Mortality of Foundlings.

Dr. C. R. Drysdale states (Brit. Med. Jour., Oct. 22, 1870): "In Paris, in 1865, of 4,887 children abandoned younger than one year, 1,516 died under the care of the Foundling Hospital. In fact, the mortality of Parisian children is excessive, since that city loses 39 per cent. of all its children under one year of age annually. There is an immensity of illegitimacy in Paris, which accounts for this great mortality. Society, naturally, cannot expect the mother of an illegitimate child to take much care of it, since it makes it almost impossible for an unmarried woman to get a living for herself, if burdened by an infant. Thus, in a private letter to myself from Dr. Leon Lefort, in June last, he informs me that more than one in four of the births in Paris are illegitimate. In some of the foundling hospitals in France as many as 90 per cent. of the infants confided to their care have died in less than a year. Our foundling hospital in Guilford street, is, of course, like many other London charities, a job; and even Mr. Acton was not able to find out whose children got into that favored spot.

Treatment of Diarrhœa in Children.

M. Heller recommends the nitrate of bismuth, in doses of half a drachm to one drachm, in the diarrhœa of infants. At the outset this may be repeated every hour till the looseness of the bowels ceases, which usually happens within twenty-four hours. No ill consequences ever result from its employment.—*Deutches Archiv. f. klin. Med. Band.*

Treatment of Cancrum Oris.

Dr. W. S. Edgar, of St. Louis, invites attention (St. Louis Med. and Surg. Journal, Sept. 1870) to the prophylactic treatment as all important in this disease. When small points of ulceration are discovered on the gums and inner surface of the lips and cheeks, and the face or gums begin to swell, and the mucous membrane becomes puffy and shining around the ulcers, the danger is imminent, and the patient should at once be put on nutritious diet, tonics, and change of air when practicable. Among the ferruginous preparations the liquor ferri iodidi is preferred in these cases and it should be given, particularly in malarial regions, alternately with the citrate of iron and quinia. The local treatment is no less important. Thorough cleansing of the ulcers and mouth twice a a day with the nebulizer, using a weak solution of the chloride of sodium or chlorate of potassa; also the permanganate of potassa to correct the offensive odor of the mouth and stimulate healthy granulation. If any escharotic is indicated, a strong solution of sulphate of copper, xxx grs. to the ounce of water, or paste of permanganate of potassa is preferred to the mineral acids, as less painful and less likely to extend beyond the point desired.—*Med. News.*

The Local Treatment of Phthisis Pulmonalis and Diphtheritis by Carbolic Acid.

Dr. Rothie recommends: Acid carbol. crystal; spirit vini., aa. gr. xv to xxx; aq. distilled, dr. i; tincture of iodine, gr. xv; s. 10 to 20 drops, with one ounce of water, to be inhaled. Of six cases of consumption [caused by pneumonia, tubercles, bronchitis] success ensued four times. In diphtheria the following solution for washing and gargling was found: Acid carbol. crys.; spirit vini., aa. gr. xv; aq. distilled, dr. i; tinc. iodine, gr. vii.—*Memorabil. —Indiana Jour.*

Means of Distinguishing Real from Apparent Death.

Dr. Laborde communicated to the French Academy of Medicine (July 26, 1870) an interesting memoir on some of the physical phenomena of life, and on their application to distinguishing real from apparent death. He states that if a polished steel needle be inserted to a sufficient depth into the muscles of an apparently dead subject, and allowed to remain, in generally a short time it loses its polish and becomes oxidized; whilst this oxidation does not occur when the needle is introduced into a dead subject, if the needle be allowed to remain even as long as an hour. This absence of oxidation, with concomitant phenomena, is, according to Dr. L., a constant sign of real death.—*L' Union Medicale.*

Carbolic Acid Preparation.

Mr. T. A. Redwin, in a paper read before the British Pharmaceutical Conference, gives the following as advisable proportions in the use of carbolic acid:

As a rule, it is better to dissolve the crystallized carbolic acid (Calvert's) in the proportions of one part by weight of the acid to six of glycerine (carbolate of glycerine.) In this state it can be diluted equally indefinitely.

In general, a dose of carbolic acid is 1 grain in an ounce of water.

As a gargle, 1 or 2 grains to an ounce of water.

As an injection, 1 grain to 4 ounces of water.

As a lotion, 15 grains to an ounce of water.

As an ointment, 30 grains to an ounce of benzoated lard.

As a liniment, 1 grain to 20 of olive oil.

As a plaster, 1 part of carbolic acid to 3 of shellac.

The crystallized carbolic acid to be used as a caustic.

The carbolate of glycerine, as above, should be used in 1 or 2 drop doses.

Antiseptic oil for abscesses, 1 part of acid to 4 of boiled linseed oil.

Antiseptic putty, 6 spoonsful of the antiseptic oil mixed with common whiting.

Aqueous solution of carbolic acid is 1 part of acid to 40 of water (1 ounce of acid to a quart of hot water well agitated and filtered.)

Sick rooms, to disinfect, place a portion of the dissolved acid in a porcelain dish, and float it in a large vessel of hot water.

Disinfecting purposes generally, 1 pound of *crystals* to 6 galls. of water. *Fluid*, 1 part to 80 of water. *Powder*, 1 ounce of crystals with 4 pounds of slaked lime.

For drains, take 1 pound of the fluid carbolic acid to 5 gallons of warm water.

Toothache is often cured with one drop of carbolate of glycerine; and diarrhœa arrested in half an hour with 2 drops.

In all cases of parasitic life it is advisable to commence with very dilute carbolate of glycerine.—*Chemist and Druggist.*

Treatment of Phthisis with Arsenic Acid.

The dose must be very small, gradually increasing, and occasionally suspended; the treatment is prophylactic. The first 10 days, .016 of a grain daily; the second 10 days, one or two tablespoonsful of cod liver oil daily; the third 10 days no medicine; then as before. This treatment is to be continued from November to May; besides, the diet must be rich and well regulated.—*Abeille Medicale.—Indiana Jour.*

Chloral in Puerperal Convulsions.

Baron Paul von Sergdewitz, of Basle, communicated to the Obstetrical Society of London a case of violent convulsions in a woman suffering from endocarditis subsequent to delivery, in which chloral at once arrested the fits, after various other remedies had been used in vain.—*British Medical Journal.*

Dr. Milne has also used chloral with success in a case of puerperal convulsions. "The case," he says, "was a purely psychical one, due to the shock of a sudden loud and unexpected sound, and therefore well fitted to test the powers of the medicine, these cases being deemed rather obstinate. On the other hand, there was no albuminuria, and the absence of this complication lessened, in some degree, the seriousness of the case, and increased its amenableness to remedies. The benefit I obtained from the chloral was considerable, although not sufficient, in my estimation, to send one into ecstacies, or impress one with the belief that a novel cure had been brought before us, of unexampled power."—*Edinburgh Medical Journal*, May, 1870.

Dr. X., of Bapaume, communicated to the Imperial Surgical Society (March 23, 1870,) through M. Demarquay, a very interesting case of puerperal eclampsia in a primipara. The convulsions came on during labor, and continued after delivery. All the ordinary remedies having failed to afford relief, chloral was had recourse to, in increasing doses, commencing with four grammes. When the dose reached six grammes, the patient fell into a deep and quiet sleep, which continued for twelve hours. After awakening she had slight attacks, which were relieved by chloral, and complete recovery ensued.—*L' Union Med.*

Cure for Toothache.

Dr. Henry T. Reynolds, of Baltimore, writes to us that "for eighteen months I have been using acetate of lead as a remedy for what Burns calls 'the hell of all diseases'—toothache. I find it to act better than any of the numerous remedies proposed in the books, and in cases in which it is applicable the relief is instantaneous. Let the patient apply from one to three grains to the cavity for a moment or two, then spit it out. It fails in fewer cases than any remedy that I have tried—not more than eight per cent.—*Med. News.*

Gastric Douche.

An apparatus for applying the douche to the stomach is described by Dr. Ploss, of Leipsic. It is indicated in chronic gastric catarrh, poisoning, pyloric stricture, and pyrosis. It has a double channel, but resembles the nasal douche in principle.

Soil and Disease.

At the present meeting of the British Association in Liverpool, Dr. Moffatt, of Hawarden, has read an interesting paper on "Geological Systems and Endemic Diseases," showing that the soil has an influence on the composition of the cereal plants grown upon it, and on the diseases to which the inhabitants are subject. The district in which he practices consists geologically of the carboniferous and new red sandstone or Cheshire sandstone systems. Anæmia with goitre is prevalent amongst those living on the carboniferous systems, whilst it is almost unknown amongst those living on the new red sandstone system; and consumption is also more prevalent amongst the inhabitants of the former. Dr. M. has found by analysis that the wheat grown on the soil of the Cheshire sandstone contains the largest quantity of ash, and that there is a larger quantity of phosphoric acid and of oxide of iron in it than in the soils of the carboniferous and millstone grit systems. He has calculated that each inhabitant on the Cheshire sandstone, if he consumes a pound of wheat daily, takes in nearly five grains per day of the sesquioxide of iron more than the inhabitant of the carboniferous system, who seems, therefore, to be subject to anæmia in consequence of the deficiency of iron and phosphoric acid in his food. It is not only in the wheat grown upon the carboniferous system that there is a deficiency in the quantity of oxide of iron and the phosphates, according to Dr. Moffatt, but also in the blood of the animals reared upon it. He stated that sheep were liable to anæmia, which he attributed to sheep-walks being upon trap and limestone hills, in the soil of which there is but little, if any, iron.—*British Med. Jour.*

Medicated Cigarettes.

The cigarettes of Cannabis Indica, made by Gremault, of Paris, have been found most efficient in the treatment of affections of the organs of respiration and circulation, no less than in affections of the central and peripheral nervous system. The unpleasant effects which so often follow the internal and subcutaneous use of opium and of Cannabis Indica, are not produced by the cigarette. Their use is recommended (1) in spinal neuroses, chorea, and epilepsy; (2) in neurosis of the sensory nerves, neuralgia of the teeth, branches of the fifth pair, the sciatic nerves; (3) neuroses of the motor nerves, spasm of the throat air passages; (4) affections of the sympathetic nerves, hysteria, and other diseases not attended with plethora, and congestion of the head, heart, or lungs. They are especially useful in asthma, pertussis, spasm of the stomach and intestinal canal, nervous palpitation of the heart, and exert a quieting influence over the whole nervous system.—*Allgemeine Med. Zeit.—Med. Bulletin.*

Embrocation for Inflammation of Breasts.

℞ Fluid Extract of Aconite, - - One half ounce;
" " Phytolacca, - One ounce;
Iodide Potassium, - - - One drachm;
Warm Water, - - - One pint.
Wet linen compresses, and apply constantly.

No application with which I am acquainted will so surely prevent tumors of the mammæ from taking on the suppuration process. Even if suppuration have taken place, it resolves the indurations and relieves pain.—*Med. Bulletin.*

The Pool of Siloam.

The miraculous efficacy of the Pool of Siloam, as recorded in the Scriptures, is familiar to us all, but its modern condition appears as fraught with danger as was its ancient with the power of healing. Speaking of a fatal case of enteric fever, the surgeon of H.M.S. *Endymion*, Dr. Alex. Fisher, says:—

"I attribute the origin of this case to the use of the water at Jerusalem, and consider ourselves fortunate in having escaped with only one case of enteric fever among the seventy-two persons visiting it. Without the walls of Jerusalem the water appears to be very good, but inside it is received into vast tanks and reservoirs beneath the Harem area, and elsewhere. These, from what I saw in the excavations recently executed by the Palestine Exploration Society, are entirely without protection from receiving a large proportion of the sewage of the city, in some cases without even the slightest filtration through earth, or other obstacle. At the Fountain of Siloam, and Pool of Siloam, the water distinctly tasted like soap-suds, brought down by the water from the baths, &c., close to the Temple enclosure."—*Lancet.*

Treatment of Chronic Constipation.

The Rev. David Bell, M.D., of Yorkshire, England, urges the advisability of combining tonics with aperients in cases of irregular and slow action of the intestinal canal, and states that he has for many years found the following prescription uniformly efficacious in overcoming habitual constipation:

℞. Aloes Socotrin., Ext. Hyosciami, - - - āā gr. xii;
Quinin. Disulph. - - - - - - - - gr. vi;
Ferri Sulph. - - - - - - - - gr. iv;
M. bene et fiat massa in pilulas xii æquales dividenda.

One of these pills, taken in the afternoon from four to six o'clock, will cause a formed natural motion the next morning, without pain. The proportion of aloes may in some cases be reduced, to assimilate its action to that of nature. Its supposed influence in causing or aggravating hæmorrhoids has not been found by the author in the use of the above combination.—*Med. Gazette.*

Treatment of Syphilitic Swellings.

Prof. Sigmund recommends punctures by an exploring trocar, or by a Pravaz's syringe. The puncture must be performed once or twice a day, followed by an injection of linseed oil with carbolic acid, or by a compress bandage. After the puncture the pus can also be evacuated by slight pressure. In regard to the general treatment, the author mentions the hypodermic injection of chloride of silver. The solution contains four grains to an ounce of water. At first, 12 drops are injected twice a day. The groin and the infra-clavicular region should not be chosen as sites for injection. The cure is rapid, but not sure. In suppurating buboes, S. applies a solution of carbolic acid one part, with linseed oil four parts and lime 32 parts, after Lister. It is useless in periadenitis. It requires the same length of time as any other method, but in cases of large cavities it manifests its good effects by diminishing the secretion and bringing up healthy granulations. —*Bericht d Wiener Krankenhauser.—Indiana Jour.*

Employment of Phosphorus in Psoriasis.

Of late, several experiments with phosphorus have been made in the various hospitals of Paris. It has been tried in some cases to which it had not until now been applied. Amongst others, we may just mention the employment of phosphide of zinc in locomotor ataxy and phosphorus in psoriasis. This last trial is due to Prof. Hardy, the well-known dermatologist. M. Hardy had previously employed the substance in similar cases, and had renounced its use; but during the last few months he has resumed his researches. There are now five patients in his wards—three female and two male—subjected to this mode of treatment. One of the female patients, aged sixteen, and affected with general psoriasis, has taken every day since Dec. 16th a teaspoonful of the following compound—oil, 150 grammes; phosphorus, 10 centigrammes; and has been rubbed every night with a pomade composed of—hog's lard, 100 grammes; phosphorus, 1 gramme. Under the influence of this treatment the scales have completely disappeared. No unusual symptom has been observed.—*Lancet.*

Effect of Medicines on Temperature.

Mr. F. J. Mavor, in a note to the *Lancet*, asserts, as the result of numerous experiments, that atropine, morphine, strychnine, opium, belladonna, digitalis, chloral hydrate, nitric and muriatic acids, nitrate and carbonate of potassa, ammonia, sulphate of magnesia, iron, and aloes, all raise the temperature both in health and disease. If so, it would perhaps be well to overhaul our list of antiphlogistics for further experimentation.

Lithotomy.

Mr. Holmes Coote says (*Lancet*, May 21st, 1870) that "lithotomy, properly performed, is not in itself so serious an operation as some authors have made it. The last twenty-two cases performed at St. Bartholomew's Hospital have been without exception successful. In unfortunately fatal cases the cause of death is not hæmorrhage, or very rarely so. I cannot recall a case of death from hæmorrhage at St. Bartholomew's Hospital, during the whole period that I have been attached to that institution. Neither is extravasation of urine a common cause of death with good operators. But when the kidneys have become diseased, the patient's power of recovery seems wonderfully diminished, and inflammation of the peritoneum is an event which the surgeon justly holds in dread."

Croup and Lactic Acid.

Dr. A. Weber states that since he commenced using lactic acid in croup, he has had no need to operate, and has not lost a case. Every half hour from fifteen to twenty drops of the acid to half an ounce of water are to be inhaled through an apparatus for that purpose. After the dyspnœa has been diminished, the dose is to be lessened to five drops every hour.

The Lady Doctor.

Yesterday I went to the ball,
I'll tell you now the issue,
Dancing is healthy for us all,
(It renovates the tissue).

My partner for the first quadrille
Spoke soft of "lovers' perjury;"
I'd never heard of that disease
In all the range of surgery.

He swore that he was mad with love,
In accents quite theatrical;
I hailed him as an object fit
For studies psychiatrical.

He swore his heart was breaking fast;
I begg'd he'd try a blister,
But said that broken hearts to set
Would puzzle e'en a Lister!

He said that he should pine away,
In accents melancholic;
I recommended 'gainst decay,
The acid called carbolic.

He left me, but consoled himself
With soda and with sherry—
He knew, no doubt, the first alone
Is deleterious, very.

The next with whom I danced had such
A well developed head, sir,
I wished that, as a legacy,
He'd leave it me when dead, sir.

'Tis true he couldn't waltz—indeed,
He floundered like a grampus—
But then his brains!—I'm sure he had
A monstrous hippocampus!

A student medical was he,
A man of humor comical;
O how he'd laugh when'er he made
A *bon mot* anatomical!

And so we left the dance and band,
I'm sure you'll own we'd gumption;
The galop sole of which we spoke
Was galloping consumption.

The waltzers at the *trois temps* danc'd
As they'd go on forever—
The only *trois temps* we thought on
Was tertiary fever.

But here I'll pause; I'll only add,
To gratify my tutors,
I practiced for anatomy
By "cutting up" my suitors.

—*Eclectic Journal.*

Obituary—H. F. Chesbrough, M.D.

Henry Freyer, second son of Ellis Sylvester and Elizabeth Ann Chesbrough, natives of Maryland, was born in Totness, Orangeburg District, S. C., Sept. 19, 1840. His father was at the time Engineer of the Louisville, Cincinnati and Charleston R. R., of which he remained in charge until its completion to Columbia, S. C. In 1842 the parents of Henry removed to the North, and in 1844 his father resumed the practice of his profession in Massachusetts and other New England States. The son received his primary school instruction in Stoughton and West Newton, Mass. He passed through one of the Grammar schools of Boston, and afterwards attended the Latin school of that city for three years, when in Jan., 1856, he went with his mother and brother to Chicago, his father having accepted professional employment there the year before. There Henry, (or Hal, as he was familiarly called by intimate friends,) passed through the High School, being the second to graduate in that institution. He then entered Yale in the class of '63, but owing to the asthma, with which he was quite early afflicted, the climate of New Haven could not be endured by him, and the faculty strongly urged him to enter Beloit College, Wis., which he did, and graduated in 1863. He then studied medicine, and received a diploma from Rush Medical College in 1865, and immediately entered the army as Ass't Surg. in the 153d Ill. Vols.

July 8, 1865, Dr. Chesbrough married Miss Mary H. Goodall of Beloit, Wis. In September his regiment was disbanded, and he went very soon after to New York, where he spent the season in attending medical lectures and visiting the principal hospitals of that city.

In June, 1866, he was appointed Surgeon of the Peninsular Division of the Northwestern R. R., and removed to Escanaba.

In Feb'y, 1868, he returned to Chicago, and commenced the practice of medicine in this city.

In May, 1858, the subject of this memoir became a member of the New England Congregational Church of Chicago, with which he remained connected until his death, which occurred Dec. 8, 1870. He leaves, besides his widow, one son, three years old.

Dr. Chesbrough has been known to the readers of this Journal by his well written clinical reports. His connection with the Dispensary department of Rush Medical College has been characterized by such assiduous attention, zeal and practical success, as alone to render his comparatively sudden removal by death, a loss deeply to be deplored by his coadjutors and the large number of patients to whom he had rendered himself both respected and beloved by his many noble qualities of head and heart. As a gentleman of refined manners, ripe education and culture, with a capacity and inclination for minute and careful study, and at the same time for grasping the broadest and most comprehensive ideas of Medicine as a

science, we have rarely met his equal at his age. Alway urbane and courteous in his deportment, his bearing was but the exponent of his native kindliness and amiability of disposition.

Few men of his years had so truly achieved real success—not perhaps in pecuniary accumulation, extensive practice or general repute—but in laying broad and deep the sure foundation of future eminence.

His last illness which from the very commencement was attended with extreme suffering except while he was under the influence of narcotics, was borne with the most uncomplaining patience, and he met its finale with the firmness and resolution of a man and a Christian.

As a friend and professional associate we shall ever cherish his memory, whilst we extend to the immediate circle of afflicted relatives our most earnest sympathy.

[Through the kindness of CHAS. T. PARKES, M.D., we are enabled to give the subjoined notes.—ED.]

Post mortem examination of the body of Dr. H. F. Chesbrough, twelve hours after death. Made section of the abdomen only. Found the abdomen moderately distended; the peritoneal cavity containing a quantity of shreddy lymph; the usual evidences of general peritonitis were well marked. Found considerable congestion of the omental and intestinal vessels; the surface of the omentum, mesentery, and intestines were covered with quite a number of large patches of lymph; the under surface of the diaphragm was covered with a continuous layer of thick lymph; the intestinal walls were greatly discolored, and in places gangrenous disorganization had taken place; an attempt to lift up a fold of them would lead to a tear through the entire walls. No obstruction, perforation or intussusception was found. The other contents of the abdomen were apparently perfectly healthy.

The officers and attendants of the North Chicago Charity Dispensary met in the Library Rooms of the Rush Medical College, Dec. 10, 1870, and adopted the following resolutions:

Whereas, We have been called to mourn the death of Dr. HENRY F. CHESBROUGH, Secretary of the North Chicago Charity Dispensary—

Resolved, That we have lost a faithful friend and helper.

Resolved, That the Dispensary has sustained the loss of a devoted and efficient officer.

Resolved, That we tender our heartfelt sympathy to the bereaved family.

Resolved, That these resolutions be sent to the CHICAGO MEDICAL JOURNAL and the city papers for publication.

Dec. 20, 1870. CURTIS T. FENN, *Sec. pro tem.*

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII. — FEBRUARY, 1871. — No. 2.

Original Communications.

ARTICLE I. — *Cases in Practice, with Remarks upon the Use of Veratrum Viride.* By B. O. REYNOLDS, M.D., Geneva, Wis.

CASE 1. Called on the evening of Sept. 3rd, 1859, to visit William O——, aged about 48, residing near Elk Horn, Wis.; a person of delicate build and constitution.

Was informed that three days before, he was attacked with severe vomiting and diarrhœa, but they had not considered him dangerously ill until to-day.

Found him somewhat delirious, with high fever, and stomach and bowels considerably distended, tympanitic, and tender on pressure. Tongue thickly furred; respiration hurried; pulse, 130. As my notes are silent as to treatment at this visit, I will not, from memory, attempt to give it.

Sept. 4, 9 o'clock, A. M. All the symptoms of last evening greatly intensified, except the febrile heat, which had materially abated; stomach and bowels greatly distended, making no complaint on firm pressure; lungs resonant over their whole extent; indeed, exaggerated, or vesiculo-tympanitic over lower antero-portion; delirious—could scarcely be rallied to respond to questions;

great jactitation; pupils moderately dilated, and immovable; tongue flattened, motionless, and covered with a dirty, ash-colored coating, pale at the tip and edges, moist throughout; respirations 65 per m.; pulse scarcely perceptible at the wrist, but by listening to heart found to be 187 per m.

With the assistance of a neighbor, his head was raised, and he was forced to swallow m. x Nor. Tr. Veratrum Viride, mixed with a teaspoonful of water; directing m. viij to be repeated every three hours if he could be made to swallow; continue fomentation to bowels (which I had ordered last evening) and bottles of warm water to be placed to his feet. I left, never again expecting to see Mr. O—— alive.

Visited Mr. O—— again at 8 o'clock, P. M. Found him apparently dying; bathed in perspiration; countenance very pale; skin cool; respirations slow, (12 per m.) but full; with hiccough about once per minute, that seemed to agitate his whole frame, and even shake the bed; pulse 52, full, soft, and uniform; bowels much less enlarged, and much softened. His intellect seemed lucid, but he was unable to speak, or even raise his hand.

On inquiry, I learned they had given m. xx of Veratrum every three hours, instead of eight drops as directed—had given two doses, but said they would give him no more as they believed him dying; also, learned he had vomited freely; had an involuntary movement of bowels and bladder.

I did not inform them of their mistake, as the case was so forbidding at the beginning of the treatment that a fatal termination was liable at any moment, but mentally considered that I now had a well marked case of poisoning by Veratrum Viride to deal with. ℞. Brandy toddy, with capsicum, every fifteen minutes. He had taken but two or three doses when he showed perceptible signs of improvement, when the intervals of giving the stimulus were lengthened. In one hour the pulse had risen to 70; at 10 o'clock, pulse 75; general appearance much improved, at which time he was enabled to drink a little broth. In one hour more the pulse had risen to 75, full and uniform; hiccoughing only at intervals of ten or fifteen minutes.

At 11 o'clock the hiccoughing had entirely ceased; pulse 75; respiration nearly natural; enlargement of bowels diminishing. He continued to improve in every respect up to 1 o'clock, when I

left him after leaving a few Pulv. containing Quin. gr. i , Opi. gr. ss. —one to be taken every four hours—with some general directions relative to his food and comfort.

Sept. 5th, 5 o'clock, P. M. Patient very comfortable, says he feels well; enlargement of stomach and bowels nearly gone, but slightly sensitive to firm pressure; pulse 83; respiration natural; tongue cleaning, and everything indicating a speedy convalescence. R. Quinine, gr. ij, every six hours, and Tr. Chlorid. Ferri, m. x, morning, noon and night. Left, with instructions to inform me if patient became worse. In the course of a week I saw Mr. O—— in the streets of Elk Horn looking as well as usual, and he said he felt well.

Case 2. Called Sept. 11th, 1869, by telegram, to Delavan, Wis., a distance of twelve miles, to see young P——, a lad aged about 17, arriving about 9 o'clock, P. M. Found him under the care of Dr. B. Devendorf, a very intelligent physician of Delavan. Young P—— had been about one week sick with inflammation of bowels. Condition of patient: pulse 140 per m.; respiration (not counted) considerably hurried; tongue thickly furred, very red at tip and edges; bowels greatly enlarged and extremely sensitive to pressure, even of the bed clothes; frequent vomiting; complaining of great pain in bowels, though he was moderately under the influence of morphia. Had recently had free discharges from bowels; renal secretions, scanty and high colored; constant thirst and great febrile excitement.

If my memory serves me, the treatment he had been under for the past twenty-four hours, was about the following, viz.: Calomel, Morphia, Aconite, Digitalis, and thorough fomentations to bowels.

All these in good honest allopathic measure, and yet, as the Doctor expressed it, he "feared he might slip through his fingers."

The results of our deliberation were: That the Morphia, Aconite, and Digitalis, be discontinued; continue alterative doses of Calomel, and the fomentations; also, Nor. Tr. Veratrum Viride, m. iv, every two hours.

In one hour, the pulse had fallen ten beats; in two hours, twenty; in three hours, thirty-five; meanwhile the pain had nearly or quite left the bowels, which had become considerably diminished in

size, and less tense; respiration less hurried; skin becoming moist, and had a moderate evacuation of bladder.

At about this period, friends (having been telegraphed to, at Milwaukee) arrived, bringing with them a disciple of the insane Hahnemann, who immediately advised Tr. Aconite, m. 1-8, and a small spoogen of Apis mel (don't recollect the exact amount); but in some way the idea got through his cranium that the patient could take none of these while we were in attendance.

We modestly intimated that we were in the case "for keeps," or until the friends of young P—— desired a radical change of medical attendance.

The friends very justly concluded "that inasmuch as the patient was doing well, and momentarily getting better, no change was advisable."

To this the professional gentleman acquiesced with apparent good grace, yet very modestly and politely insisted upon making an application to patient's bowels, with a pocket homœopathic battery, which he very forcibly and lucidly demonstrated *could do no harm*, while it might possibly do a power of good. But this very harmless request (to the shame of my venerable friend first in attendance be it said) was also refused.

Continued the Veratrum in smaller doses and at less frequent intervals, until about two o'clock, the pulse meantime getting down to 90, and the young man's symptoms improved in every respect. Dr. D—— and the writer, after giving directions for the night, or rather morning, retired.

Sept. 12th, 6 o'clock, A. M. Found patient much improved in every respect. Had rested well, and slept considerable the latter part of the night; perspiring quite freely; has not vomited; bowels much less tender and swollen; tongue looking better; pulse 85. As Dr. D—— had not come round yet, left him a hurried note, and returned home.

Sept. 13th. Received a line from Dr. D—— in which he says. "Patient doing finely." In a few days I met Dr. D——, when he informed me that our patient had a rapid recovery.

CASE 3. Oct. 30th, 1870. Called to see Wallace H—— of Geneva, a lad of 13 years, not remarkably robust when in his best condition. Found him with well marked symptoms of typhoid

fever. His mother stated that he had been complaining for more than a week. It is not my design to enter into the minutia of the progress or treatment of this case, during the first few days of its continuance; but I would simply say, that for typhoid fever, it assumed a mild, though unambiguous form, and continued to progress favorably until Nov. 8th, 9 o'clock; on my arrival, the mother stated that W—— had passed a worse night than any since his illness.

At this time he was taking small doses of Quinine, Aconite and Terebinthinate Emulsion. These had been administered for several days, during which time his tongue had begun to clean; bowels becoming less tender; alvine evacuations lessened in frequency and much improved in appearance and consistency. Indeed, up to this time the patient was considered to be doing as well as could be expected.

I find him with tongue nearly clean, but preternaturally red, of a glossy smoothness, with thinly scattered sharp papillæ elevating the mucous membrane, moderately moist, but the mother stated was disposed to become dry during sleep, and when going sometime without drink. Said she had not noticed any diminution in renal secretion; had perspired profusely during the night; had an evacuation of bowels, which she thought improved in appearance. On examination, I found his pulse 113, (they were 75 when I visited him yesterday); slight subsultus tendinum; bowels moderately sensitive to firm pressure, but much less so than during the first week of his illness; mind lucid when thoroughly awake, but disposed to wander when partially asleep; pupils natural, but the eyes had an undefinable quizzical expression, which impressed me unfavorably; lungs resonant; uniform warmth of extremities. Says his head does not ache; complains of no pain.

℞. Suspend Quinia and Aconite; continue T. Emulsion and give Spirits Nit. Ether and decoction of Valerian. Informed the parents that I did not like the aspects of the case at this stage of the disease, and would see him again in the evening.

Nov. 8th, 6 o'clock, P. M. Found patient decidedly worse, had passed a very restless day; pulse 140; respiration rapid; tongue very red, smooth and dry; countenance anxious and hippocratic; delirious—rehearsing his boyish pastimes, etc., picking at the bedclothes and reaching at imaginary objects—would answer mechani-

cally when sharply rallied—would protrude his tongue with difficulty; great jactitation, extreme restlessness, etc. ℞. N. Tr. Veratrum Viride, m. iv, every three hours. If nausea or vomiting occurred, omit Veratrum and give whisky sling.

Nov. 9th. Nine o'clock, A. M. Patient very much better; had taken medicine regularly; had not vomited; had rested well all night; skin moist; had discharged urine freely; no discharge from bowels; tongue moist, but yet red and smooth; pulse 70, full and soft. Parents very happy, and boy, as he expressed himself, "first rate." ℞. V. Viride, m. iij, four hours; Quinine, gr. i, six hours, with plenty of nourishment.

Evening, six o'clock, P. M. Still improving; takes nourishment with a good relish; pulse 68, full and steady; tongue moist and slightly furred; in a gentle perspiration; bowels less tender; no discharges from them; passes urine freely. ℞. Omit Veratrum, continue Quinine.

Nov. 10th, 9 o'clock, A. M. Still improving; pulse 80. ℞. Continue Quinine; Veratrum Viride, m. iij, morning and evening.

Nov. 11th, ten o'clock, A. M. Patient doing well; pulse 75; tongue beginning to clean. ℞. Cont. Quinine, and give Ferro. P. & W.'s Elix. of Calisaya, ʒ j, morning, noon and night. No medicine during the night.

This case continued to improve steadily, and on the 17th Nov. was discharged, with instructions to continue the ferruginous preparation for a few days.

Case 4. Dec. 13th, 1870, three o'clock, P. M. Called to see Ida G——, of Geneva. Dr. H. W. Boyce in attendance. The patient, a lively, rosy little sprite when in health, about eleven years old. Scores of times during the past summer and fall, I have observed her dancingly tripping by my office, a perfect picture of health and happiness. She is well fed, clothed and housed, the pet and darling of the family, and cared for with most anxious solicitude by her intelligent parents.

I learned that she had been attacked, about three weeks previous, with scarlatina simplex, and had been constantly under the supervision of Dr. B. since that time; that the eruption came out promptly and thoroughly; that no complications were attendant; that in fact the Dr. and friends considered her to be doing well

until yesterday (12th) when she appeared somewhat delirious and had two spasms closely following each other, and to day has had several more. The Dr. was giving Cal. and Digitalis; had fomented the bowels, bathed the loins with Spts. Terebinth., and had given several injections of Sulph. Magnesia. Present condition: slight puffiness of the face and hands; upper eyelids considerably swollen; bowels moderately enlarged; urine scanty; extremities cold; face flushed; tongue moist, but covered with a dirty, drab-colored coating; pupils slightly dilated, but contracted on exposure to light; eyelids firmly closed and would not open them; a dry, spasmodic cough; partially delirious, talking constantly; complaining of feeling very tired; had vomited some to-day; lungs resonant; pulse 110; respirations 40; great restlessness, constantly tossing about in bed, etc.

Diagnosis: Uræmic Poisoning.

It was decided that plenty of water should be given her to drink, and Decoct. Bac. Juniper and Fol. Buchu administered every two hours. As the Dr. was of the opinion that she could be made to swallow but little, small injections of strong solution of Pot. Chloras were to be used every three hours; continue fomentations.

Dec. 14th, eight o'clock, P. M. Requested to see Ida again. Found her to all appearance in a dying state. Dr. Boyce in attendance; had been constantly with her since my last visit. Patient has had several convulsions, but the Dr. thinks they have been partially prevented by free inhalations of Sulph. Ether and Fl. Ext. Valerian. Had kept up injections of Pot. Chloras, had also given one or more spoonfulls of chicken tea, but was unable to get her to swallow but one teaspoonfull of the decoction prescribed yesterday. Said the patient was dying, and he was worn out with fatigue and loss of sleep, requesting me to do whatever I thought advisable. He left the patient in my hands.

I now examined our little patient, whom I found pulseless at the wrist; extremities cold, shrunken and livid; pupils moderately dilated and immovable; constantly tossing in all directions, calling for mother and friends, who were gathered around her couch, momentarily expecting to see her stilled in death; heart beating too frequent to be counted with the ear to the chest, but it aproximated 260 per m.; respirations 95 per m. Impressed with the

idea that she could not be made to swallow, and might die in its attempt, I prepared a two-ounce solution of Permanganate Potassa, in which was put Nor. Tr. Veratrum Viride, m. xv, and had it injected per anum. This was immediately rejected. Calling for a teaspoon, and filling it about half full of cold water, I dropped from my phial, Nor. Tr. Veratrum Viride, m. x, into the spoon, and with the assistance of those in attendance enabled the dying Ida to swallow it to its last drop.

Laying her down and looking at my watch I found it was just nine o'clock. Ida remained (doubtless from physical exhaustion) perfectly passive and motionless for the space of ten or fifteen minutes; nothing was heard in that room but the rapid breathing of the little sufferer, and an occasional stifled wail of anguish from the grief-stricken friends. She soon began, however, to be uneasy, but not to the extent she had been before.

In forty minutes from the time the medicine was given, I could plainly discern an improvement in her breathing. Heart beating evidently slower, but too tumultuous to time correctly. At 10 o'clock nearly all present began to whisper "She seems better." At 11 o'clock she was much improved, and was induced shortly after this to drink cold water. At 11½ o'clock counted pulse at carotid, found them 200 per m. At this time for the first, could feel a perceptible thrill at radial artery, but too delicate and unsteady to be counted correctly.

At 12 o'clock finding the pulse but little more reduced in frequency, I gave Ver. V., m. vij, followed by a draught of cold water. At one o'clock, with care the pulse could be counted at the wrist 185. By this time she had become comparatively comfortable. At two o'clock the pulse had lessened in frequency to 145, considerable volume, uniform and steady; respiration and general appearance much improved; extremities warm, and skin moist. Would drink water, but it required considerable firmness and tact to enable her to do it. Three o'clock, pulse 142.

℞. Tr. V. Viride, m. v. At 4 o'clock, her pulse had fallen to 132, increasing in volume as it diminished in frequency; respirations counted, and found to be 44; patient very comfortable; gently perspiring. No appearance of nausea or vomiting. After giving instructions to administer V. Viride, m. iv, every three hours, with abundance of water as often as she could be induced to drink, and

to give milk or animal broths occasionally, I left, feeling conscious that we had accomplished a good night's labor.

Dec. 15th, ten o'clock, A. M. Found Dr. B—— in attendance, who expressed great astonishment that Ida was yet alive. Patient much improved, pulse 102; respiration 40; sweating freely; had passed urine; had drank water quite freely. ℞. Tr. V. Viride, m. iij, every four hours. Light to be excluded from room as much as possible. All visitors and superfluous attendants to be excluded from the room, and a liberal amount of water, milk and animal broths to be given her.

Dec. 15, 7 o'clock, P. M. Visited Ida again. Has been very comfortable all day; has taken her medicine regularly; has no nausea; has taken milk and other nourishing drinks; has passed urine freely, also had a small discharge from bowels; countenance calm but somewhat pale; skin cool and covered with moisture; puffiness gone from eyelids; tumefaction of bowels disappearing; intellect clear, and for the first time since I had been visiting her she opened her eyes, and protruded her tongue on my requesting her to do so. I find her pulse 62, soft and full; respiration 33; perspiring freely; extremities warm. There has been no vomiting. Directions: discontinue medicines during the night; keep her very quiet, give plenty of bland nourishment.

Dec. 16, 8 o'clock, A. M. Patient continues to improve; rested well most of the night. Called for coffee and cake, her accustomed breakfast when in health; partook sparingly of weak coffee and cracker. Respiration nearly natural; pulse 95; skin moist; urinary secretion fair. ℞. Quin. gr. i, every six hours; Tr. Veratrum, m. iij, as often as necessary to keep the pulse below 90; also, give Acetate Ammonia, one teaspoonful every four hours.

Nine o'clock, P. M. Patient still improving; pulse 90; respiration good; bowels had moved; considered the patient out of danger. Left her in the hands of Dr. Boyce, with advice to continue tonics in small doses, and control excessive action of heart with Veratrum if necessary

I have heard from Ida daily, and she has continued to improve steadily, and at this writing, Dec. 26th, is almost completely restored.

REMARKS.

As this report has become extended to a much greater length than was at first anticipated, I will not enter upon the discussion of the mooted question, "Is Veratrum Viride a poison?" nor speculate on the modus operandi of its action on the animal economy.

Suppose it is "a virulent poison," as some of our old authors have it (which, however, I do not believe), must the profession ignore its discriminate use on that account? Taking this view of the remedy under consideration, does it not rather lead to the conclusion that in it we have a potent agent, capable, under proper and well chosen circumstances, of accomplishing a vast amount of benefit in the treatment of disease?

If the word "poison" has such alarming import, why not in practice discard the use of Alcohol, Arsenic, Aconite, Ammonia, Antimony, Belladonna, Bismuth, Camphor, Cantharides, Colchicum, Chloroform, Digitalis, Ergot, Ether, Hyosciamus, Hellebore, Henbane, Hemlock, Iodine, Lead, Lactucarium, Lobelia, Mercury, Nux Vomica, Opium, Stramonium? The entire class of mineral, and some of the vegetable, acids, together with many other articles in daily use with the profession — even Epsom Salts and Cream Tartar—would belong in the same category, (*Vide* Taylor on Poisons, pp. 19, 305), for they have been known to destroy life, which fact, I think, cannot be substantiated in regard to the article under consideration.

In the use of Veratrum in Case 1, I was at the time as ready to censure as to praise. That Mr. O—— would have died in a few hours without its use, I was satisfied. That its over-dose came very near killing him, I felt also positive; and that it ultimately saved his life, I am, and ever shall be, morally certain.

Case 2 having been judiciously treated from the beginning, might possibly have recovered without its use. But I ask, what remedy or remedies have we, that would have caused so perceptible a change for the better in so short a time?

In a continuous practice of twenty-four years, I have treated many cases of this grave disease, both in army and private practice, and I here affirm that I never saw a case of this disease make

half such rapid progress towards health, as was exhibited in this case under the use of Veratrum Viride.

In Case 3, it seemed "like a strong man armed" to lift little Wallace from the declivity which leads to death, and rapidly restored him to health and happiness.

In Case 4, its workings were more like magic than anything real. It seemed to clutch, as it were, this child from the icy embrace of death, and but for its timely use, I have no doubt that dear Ida would have been "where the woodbine twineth," within a few short hours from my arrival on that eventful evening.

ARTICLE II.—*Cases in Private Practice.* By JNO. E. OWENS, M.D., Surgeon St. Luke's Hospital, Chicago.

[Continued from page 20.]

Remarks. Besides the drastic cathartic and injection, the treatment, in the first case, consisted of Calomel and Opium in combination, Sweet Spirits of Nitre, and Opium, or Morphia pro re nata. Every effort was made to apply leeches, but in vain. In lieu of the latter, a blister was ordered over the tender part, but this produced anything but a satisfactory result. Fomentations were used from the first. In this case I was in the dilemma of having started with an incorrect diagnosis. Indeed, I know of no class of diseases so obscure, in a diagnostic point of view, whether connected with the alimentary canal in general, with the cæcum and appendix in particular, or with other organs in this locality, as tumors, inflammatory or otherwise, of the abdominal cavity. As the case progressed, however, it became the more obscure, as the prominent symptoms of intussusception were forced more and more in the background. Since this case was under my care, I have learned that every minute circumstance is important, and must be considered, before we can arrive at a correct diagnosis. Localized pain, tenderness, nausea, vomiting, swelling, distension of the abdomen, constipation, and a scanty secretion of urine, characterized the first case. We may have precisely the same chain of symptoms in inflammatory affections of the cæcum and

its appendix, whether the inflammation commence in the areolar tissue around the cæcum, in the cæcum itself, in its peritoneal covering, or in the appendix. We may have the same chain, in intestinal obstruction and strangulation, whether the cause be the presence of foreign bodies, impacted feces, gall-stones, strictures of the gut, displacements, brands, adhesions, or gaps in the ementum. These, then, being prominent points of similitude, let us see what points of contrast there are between intussusception or obstruction, inflammation of the cæcum and appendix, from the presence of foreign bodies in the appendix, and simple inflammation of the same. The most frequent form of intestinal obstruction is intussusception. There is a sudden pain, which recurs in paroxysms, is accompanied by constipation, and is usually localized by the patient. At the seat of pain, a firm, dull, resistant tumor, or mass, is usually felt. Nausea, vomiting, prostration, fever, peritonitis, and distention of the abdomen, supervene. The vomiting sooner or later becomes stercoraceous—unless the disease be seated in the upper part of the tube—in some part of the jejunum, for instance, in which case the vomiting will remain bilious for the most part. If the tumor is located about the iliac fossa, fecal vomiting will soon occur. We can well understand how insuperable must be the constipation of a perfectly closed bowel. Sometimes, however, the constipation is not absolute, owing to the constricted part remaining pervious, the liquid contents passing through the intussuscepted part and occasioning a deceptive diarrhœa. There may be, likewise, this same deceptive diarrhœa, should the obstruction be located in the upper part of the tube, and occasionally when it is seated in the large bowel. Indeed, after a time there is likely to be a discharge of blood, serum and mucus, accompanied with considerable tenesmus. These, together with the paroxysmal character of the pain, and the movements of the excited intestines, which may be seen and felt soon after the commencement of the affection, are symptoms that materially assist us in a diagnosis of intussusception. Finally, the symptoms of obstruction force those of inflammation more and more in the background.

The most common affection of the cæcum and appendix, is inflammation. It arises from a variety of causes. When an inflammatory affection of this part of the canal is diagnosed, it is

seldom that we can go further, except to remember that it is generally caused by the presence of foreign bodies. Of course. the symptoms vary according to the severity of the inflammation, In forming the diagnosis of inflammation from the presence of a foreign body in the appendix, we must eliminate cancer, psoas-abscess, inflammation of the ovary, abscess of the kidney, abscess in the abdominal walls, cæcal distension, and intussusception. This may done, for the most part, by a critical consideration of the history of the case. Cancer, psoas-abscess, and abscess of the kidney, are chronic affections. In suspected renal abscess, an examination of the urine will negative or confirm the diagnosis. In cæcal distention and inflammation, unless a foreign body be present, the symptoms seldom become so urgent, and are scarcely ever fatal. Ovarian disease usually comes on with disordered menstruation, and the pain is usually lower down in the hypogastrium. The symptoms of abscess in the abdominal parietes are markedly less severe, and the disease, in a very short time, manifests its local character. In the first case—one of the presence of a foreign body in the appendix—the patient was attacked, eight or ten hours after eating chestnuts, with colicy pains in the right iliac-fossa, and was obliged to return from his evening walk. The bowels were somewhat constipated on Friday, 7th. The second day, the pains grew intense; there were constipation, fever, some nausea and vomiting. In the right iliac-fossa an irregular, exquisitely painful tumor, dull on percussion, was detected. There was surrounding tympanitis. The vomited matter was bilious. An invagination at the site of the tumor would, very soon, have been attended with fecal vomiting. The constipation was not insuperable, since there was an evacuation the first part of the third day; four others, containing a little mucus, towards the latter part of the third day, and one on the fourth. None of them contained blood, nor were they characterized by the normal amount of fecal odor. The symptoms of peritonitis rapidly became prominent; the abdomen grew more and more tympanitic; vomiting, with absence of fecal smell, continued; tenderness became more extended; the urine scanty; temporary suppression supervened the third day; the patient, growing more restless, died at the end of six and a half days. This is the history of inflammation of the

cæcum and appendix, with perforation of the latter, from the presence of foreign bodies, such as raisin or grape seeds, cherry stones, chestnuts, pins, nails, shot, bristle of a tooth-brush, etc. We may include gall-stones, and fecal and mucous concretions. Cases of perforation generally occur in early life. Habershon says that the detection of foreign bodies in the appendix, without any severe irritation being felt, is by no means uncommon. A pin has been found with its head downwards. Again, he has observed an iron nail, shot, and, if I remember correctly, a mucous or fecal concretion, whose nucleus was the bristle of a tooth-brush, thus lodged, without injury. Inflammation of the appendix and cæcum, from the impaction of foreign bodies, rapidly progresses from bad to worse, especially in cases of ulceration and perforation. Cases like these, commencing with great tenderness and fever, are inflammatory from the first.

The differential diagnosis of simple inflammation of the cæcum and appendix, and that arising from the presence of foreign bodies, is a most difficult subject. Proof of the ingestion of foreign bodies, such as I have enumerated, and the greater prominence and obstinacy of the symptoms of the case look more toward the latter. If gall-stones have previously been detected in the stools, or should previous symptoms have pointed to their passage from the gall-ducts, or gall-bladder, the probability of their presence in the appendix or cæcum must be considered.

From the *post-mortem* consideration of the first case, I need scarcely say how wrong was the exhibition of drastic cathartics, which not only do no good, but positive harm, by increasing the frequency of vomiting, and aggravating the other symptoms. Unless the case be one of distension of the cæcum, from feces and gas, active cathartics are contra-indicated. In the matter of diagnosis, something may be gained by the administration of a mild aperient, but should we find that the constipation does not yield, it is erroneous to persist in this direction. Leeches, fomentations, rest, and chloral-hydrate, are the remedies to be employed. Morphia and opium are likely to add to the nausea and vomiting; hence chloral-hydrate is preferable. In the second case of simple inflammation under this treatment, the patient made a good recovery.

ARTICLE III.—*Obstinate Dyspepsia Cured by the use of Milk.*
By I. N. DANFORTH, M.D., Chicago.

For the past few years, milk, as an article of diet, in certain morbid conditions, has been much lauded by numerous writers, and very frequently, as well as beneficially, employed both in private practice and in hospitals. It is rarely the case, however, that milk, or indeed any other exclusive article of diet, is so persistently adhered to, as in the instance which I propose to report at the present time.

Mr. N. W. Belknap, an intelligent gentleman, residing in Nokomis, Illinois, found himself, in the year 1853, suffering from an obstinate and very aggravated dyspepsia, which had harassed him for many years previous. He had been "doctored" with every conceivable remedy, without any result, save the merest temporary palliation of the more urgent symptoms. Constant gastralgia, obstinate constipation, progressive emaciation, sleeplessness and hypochondria, were the more prominent symptoms at the time alluded to. Discouraged and disheartened, he determined to take the case into his own hands. His first step was to "throw physic to the dogs," and abandon drugs entirely; in the next place, he commenced a careful study of his case, with the view of ascertaining what form of diet was most acceptable to his now exquisitely sensitive stomach. After a series of remarkably well conducted experiments, he found that fresh milk—"warm from the cow"—was most easily digested, and was therefore the proper article of diet for him to adopt. Accordingly, he commenced, at the date above specified (1853), the use of milk as his exclusive food. He was at this time twenty-four years old, and weighed 110 lbs., and, as I have already indicated, his condition was truly deplorable. Under the use of the milk diet, his health has been gradually restored until, at the present time, his weight is 170 lbs., and, in every regard, he presents the appearance of a robust man. He now consumes four quarts of fresh milk every twenty-four hours, together with about four ounces of stale bread. He eats no meat at all; occasionally he indulges slightly in vegetables, as turnips, cabbage, potatoes, and apples. A very remarkable feature of Mr. B.'s case is, that he drinks no water—"not a gallon of water since 1853"—but

drinks milk instead. He always takes a pitcher of milk with him to his place of business, and makes it his constant beverage—not even drinking tea or coffee. I was much interested, also, in his statement that he felt little desire for any other kind of diet, but that he never tired of milk. It is a very common complaint among patients, when we attempt to restrain them to the exclusive use of milk, or, indeed, any other exclusive article of diet, that they soon tire of it, and in many instances it becomes so absolutely disgusting, that the stomach cannot be made to receive it, much less to retain it. Yet, here is a man who for *thirteen years* has made milk his all but exclusive diet, without even feeling it to be a hardship. An increase of body-weight might naturally have been looked for; but I think hardly any one would have anticipated so great a gain as 60 lbs. even in so long a time as this experiment has been in progress. One other point demands a passing notice: as a general thing, milk is likely to induce a tendency to constipation, so troublesome in some cases as utterly to preclude its use. Indeed, the "clogging" properties of milk are such a constant and not altogether unpardonable scare-crow to nurses, that it is frequently very difficult to get them to administer it in quantities sufficient to be of any great service. But in the present case, obstinate constipation has been replaced by almost clock-like regularity of the bowels. The discharges, Mr. B. informed me, are habitually light colored. Dr. S. Wier Mitchell, of Philadelphia, in a recent article in the *Medical Times*, states that "the stools begin to show the milk-tint—a yellowish or salmon hue—after forty-eight hours, and when the milk disagrees they are apt to be loose, while usually they are intensely tough and constipated." Dr. Mitchell's remarks relate to skimmed milk instead of fresh milk, however.

A microscopical examination of the urine in the case I have related, revealed nothing unusual, except what I had already anticipated, namely, the presence of a few free oil drops, although the proportion of oil was considerably less than I expected to find.

I have recorded this case at some length, because, in the first place, experiments in diet, conducted with such pains-taking persistency, are extremely rare, and when one does occur it is worth recording; and, in the second place, because it goes to

confirm a conviction I have long entertained, that, when milk does not absolutely disagree with the stomach, we shall find in it our most efficient means of combating many cases of gastric disorder—and especially that distressing malady which is known as "acid dyspepsia."

In conclusion, I have to thank Mr. Belknap for his kindness in furnishing me with a history of his case, as well as for the permission he gave me to publish it; and I may add that Dr. P. B. Cook, a cultivated and high-toned physician residing in Nokomis, assured me that the statements of Mr. B. were entirely reliable.

ARTICLE IV.—*On a few Instruments for the Practical Treatment of Uterine Diseases.* By PHILIP ADOLPHUS, M.D., Chicago.

The object of the writer in these articles is to describe the instruments which he has found most efficient in the diagnosis and treatment of Uterine Diseases, after repeated trials of a great variety not only in his private clientèle but also in a somewhat extensive dispensary practice.

NOTT'S SPECULUM.

The fact that the show cases of the instrument dealer groan with different kinds of Specula, and that almost every journal brings us a description of another modification, should be an evidence to us, that the instruments we possess are not perfect. Scanzoni says:* "We have experimented with instruments of the most diverse construction, and we are convinced that none of those now known completely answer the purpose."

All the cylindrical and valvular specula now in use have for their object the verification by the eye of the diagnosis made by the touch, of the various stages of disease of the *vagina and cervix uteri*, and the color and consistence of the accompanying discharges; and furthermore, the application of instruments and remedial agents to these parts.

* Diseases of Sexual Organs of Women. Fol 44.

The length of the blades of these instruments and their immobility after insertion, interfere with treatment, for, as Lisfranc observes,* "In cases requiring operations about the cervix, all that the surgeon has to do is to lay hold of the os uteri with a hook, and draw it gently down until it comes fairly within sight." This is a very serious objection, for the hook or its substitute, a tiny vulsellum, is now advantageously used for the purpose of steadying the womb and drawing it downwards in every operation, great or small. In the introduction of the probe for the purposes of diagnosis, in the constant probings instituted whilst handling instruments, for the purpose of guiding them safely, painlessly and efficiently to their destination; in applications to the cervix and fundus, in inserting sponge tents and removing them, in intra-uterine scarifications and in the introduction of the uterine catheter for the purpose of cleaning the organ of its morbid secretions; in all these cases we absolutely need the hook or vulsellum to draw down and then steady the uterus.

It is almost impossible to probe the cavity of the womb with valvular and cylindrical specula in situ; it consequently follows that no instrument can be easily introduced into that organ through these specula. The immense loss to *diagnosis* and especially to *treatment* will become apparent when the remarks on the Uterine Sound are perused. Generally speaking, the diagnosis regarding the size of the uterus, its versions, flexions, consistence and mobility, with any existing complications, can be ascertained by the vaginal and rectal touch, combined with abdominal palpation. Not always, however, can this success be attained by manipulators. The experienced skill of a Sims "may determine the condition of the uterus as easily as we would that of a pear in a napkin," yet there are very many cases, where fright, pain, nervousness, natural stupidity, excessive adipose deposit of the walls of the abdomen, tympanitic distention, inflammation of parts and spasmodic contraction of the abdominal parietes, prevent the attainment of even an approximation to a correct idea of the state and position of the uterus on the first examination by the touch. Nay, repeated examinations are necessary under these circumstances where anæsthetics cannot be used.

* Sir J. Y. Simpson, Obstetric Memoirs, 1855. Note, fol. 61.

In these cases, and they occur frequently, a proper speculum will permit us to introduce the probe gently, easily, successfully; and gather all the information which this instrument *thus employed* is capable of giving.

Finally, the valvular specula dilate the vagina by mechanical force, often produce much pain by distention and pinching of parts, hide from view diseased conditions of the vagina, and are useless in all operations where the knife and scissors are necessary. In short, the limits of their usefulness consist in permitting an ocular examination of the cervix and the treatment of its maladies.

It cannot be controverted that the *beau ideal* of a good speculum is that of Sims. To enumerate its qualities and capacities is to recapitulate every necessary requisite for the easy performance of the simplest as well as the most difficult of manipulations. Every speculum claiming superior advantages will be gauged by its approximation to the good qualities of that of Sims. His merit in the introduction of this great boon to Gynecology consists in the fact that he took advantage of an accident, which happening to an ordinary man, would have borne no fruit to humanity.

I cannot do better than to quote the words of Thomas in this connection.* "I have elsewhere called the labors of Récamier and Simpson eras in the progress of this department. I now venture so to style those of Marion Sims. In doing this I make no reference to the improvements inaugurated by him in the treatment of injuries to the genital organs; my allusion is to the great advantages which now flow and are to flow from the invention of his speculum, which exposes the uterus by a new principle and opens the way to a more complete examination of this organ.

"Récamier marked an era by improving our powers of diagnosis in exposing the cervix uteri; Simpson, another, by opening to investigation the body of the uterus; and Sims, a third, by rendering both investigations more simple, complete and satisfactory. The ordinary specula in use before the discovery of Sims' simply separate the walls mechanically, and thus expose the uterus. Sims' instrument, on the other hand, elevates the posterior vaginal walls, which allows the entrance of air to distend the whole passage, the woman lying on her side in such a manner that the cavity can be probed with the most perfect ease, and applications

* Diseases of Women, by T. G. Thomas. 1869 Fol 49.

made to the fundus. I am fully aware that many will differ with me in opinion, but being entirely free from prejudice in favor of this instrument, or against the ordinary varieties, I maintain it fearlessly, feeling confident that time will prove it to be correct. No one who has not tested the two methods of examination is really entitled to an opinion upon the point, and I cannot doubt the conclusion of him who has done so faithfully and intelligently."

Although the writer of this article is delighted to bear testimony that the little he knows of practical manipulations has been acquired by the use of Sims' Speculum and Probe; still he must admit that whilst some objections advanced by authors against the use of this speculum have no weight, there are others, which do not make it expedient to introduce it in the ordinary operations performed in private practice.

According to authors, a skilled assistant cannot be dispensed with, a table, a chair or bed three feet high is necessary, a horizontal light is requisite.

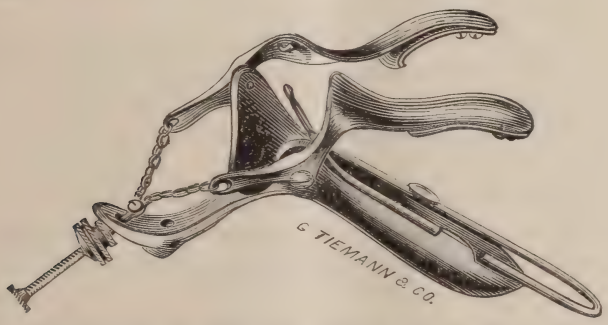
It must be admitted that in cutting operations a skilled assistant is requisite; it would be desirable also in ordinary operations, but it is not necessary. The correct position of the patient is indispensable; for the rest, a light and steady hand to retain the speculum is the requisite qualification of the assistant. Over fifteen hundred examinations have thus been made by the writer, with the assistance of such of his dispensary patients as happened for the time being to be present for treatment.

The chief objection against its use, however, *is the presence of a third party* when that presence is not desired.* "The amount of confidence shown to the profession by women in this respect, varies extremely, but I may safely say, that it is greatest in proportion to their rank and mental culture, for while women of the lower and middling classes have not the delicate perception of implicit trust, those of the higher feel that they can rely on the honor of gentlemen, and are generally of opinion *that it is sufficiently painful to submit to an examination without having the additional annoyance of its being witnessed even by another.* The best plan, therefore, is to let patients do just as they

* Uterine Therapeutics, E. J. Tilt, M.D. 1869 Fol. 11.

like, without objecting to, or requiring, the presence of a third party."

To Dr. John C. Nott, of New York City,* belongs the distinguished honor of having introduced to the profession a speculum, which, when it becomes generally known will be in the hands of every practitioner at home or abroad. Its qualities are such that it must supercede all specula (excepting Sims') now known. Another era has dawned on Gynecology, for by its use any instrument can be introduced into the uterus with ease and safety, and the patient may be placed on a bed or couch in the usual position (on the back), the practitioner requires no assistants, the instrument, easily introduced, is self-retaining, does not pinch or stretch the parts, and produces no pain on introduction. The uterus can be drawn towards the operator, whilst the speculum is in situ, the parts will then be felt as well as seen, and any operation performed which the practitioner would desire to perform without an assistant.



No one can form an adequate idea of this instrument without having seen and tried it. It is correct in design and simple in its construction. In the accompanying figure it appears formidable and complicated. I shall copy the author's description of his instrument, and add such comments (in brackets) as occur to me.

[This tri-valve instrument consists of a large duck-bill four inches long, to which are attached two small valves or feet of three inches in length; these are fastened by means of chains, to a screw which opens or closes the instrument.]

* Vide American Journal Med. Sciences, October, 1868, fol. 420, and American Journal of Obstetrics, Nov. 1869, fol. 490.

"To the large blade, or duck-bill, is attached a loop of strong steel wire, which may be slided forward or backward, according to the depth of the vagina. This acts as a depressor on the posterior wall of the vagina, but is rarely required except in large fat women."

"The two feet or small blades, which rest on the rami of the pubes when the instrument is introduced, are attached to a screw by means of chains. At the extremities of the feet, are fixed on the inner surface small steel plates, which may be pushed out to increase its length."

"These two feet are so shaped as to curve smoothly around the bones, and not to press on their sharp edges." [Their length is three inches, their width one-half inch, when fully expanded the separation of these little blades at the ostium vagina is two inches, whilst at the terminus of the small blades the distance is three and one-half inches. The vertical distance from either of the small blades to the bottom of the duck-bill, when fully expanded, is, at the ostium vagina, two inches, and at the end of the little blades, three inches. Let any one examine the speculum so disended, and he will at once perceive that Mr. F. A. Stohlman, of the firm of G. Tieman & Co., New York, has executed Nott's design with the ingenuity of a master hand.]

"The instrument is expanded by means of a button which plays up and down the screw, expands and contracts all the blades simultaneously, and fixes them at any point to suit the capacity of the vagina. Thus expanded, the anterior wall of the vagina is pushed out of the way [by a Sims' Depressor] and the os uteri brought into view, a single tenaculum [Sims'] or a double spring tenaculum [Nott's] is then fixed in the anterior lip, and the organ is drawn forward, placed and held in the position we desire."

I have removed the loop of strong steel wire, which is attached to the large blade, as it is seldom required, and can be introduced whilst the instrument is in situ, should a very long vagina make it necessary.

"The small steel plates which are fixed at the inner surface of the extremities of the feet, which may be pushed out to increase its length," I have never used, and cannot conceive, when, why, and for what purpose they should be used, and I would respectfully suggest to the inventor, that he would request Mr. Stohlman

not to add them in future. I know that the instrument would become more valuable without them.

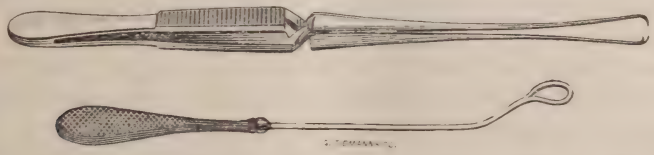
To prevent pain to the patient and difficulty to the operator, whilst the instrument is expanding, the screw should be always oiled.

Thus used, the instrument is destined to make the tour of the globe, to confer blessings on women, and to advance the science of Gynecology.

Fifty-four years have now elapsed since Récamier introduced his Speculum; twenty-eight years have rolled away since the illustrious Simpson opened the interior of the uterus to manipulations; again, have twenty years passed since another great man by the invention of the speculum insured ease and safety to investigations, where previously the greatest skill was only rewarded by riskful uncertainty; and now J. C. Nott gives us an instrument which permits the general practitioner with a little practice to emulate the skill of the giants of our profession.

We, nevertheless, continue to use Récamier's or its modifications at this day almost exclusively.

NOTE. Before me lies a duck-bill of English make (Meadows' patented, Meyer & Melzer, London), identical in principle with Sims' and Nott's. It is a trivalve, but inferior to Nott's. The duck-bill is too long, $4\frac{3}{4}$ inches; the upper blades are too long, 4 inches, and too straight. It is nevertheless an excellent instrument.



Sims' Depressor, used for the purpose of placing the os uteri within sight of Sims' Hook, and Sims' Hook for grasping the lip of the os, and drawing it in the position required, are well known. I, however, prefer Nott's Vulsellum, for it has the advantages of holding the lip of the womb firmly without slipping, even when the hold of the operator on the instrument is relaxed. Neither of these instruments give pain.

All these instruments may be procured of Messrs. Bliss & Sharp, 144 Lake street, Chicago, the agent of Messrs. Tieman & Co., of New York City.

ARTICLE V.—*On some Points in the Operation for Hare-lip.* A Paper read before the Chicago Medical Society, by F. C. HOTZ, M.D.

The operation for hare-lip is very old, and has passed through many changes and discussions. So the surgeons, at one time, had a lively debate on the question whether the edges of a hare-lip should be pared with knives or scissors. At some other time, again, the good result of the operation was chiefly attributed to the pins used, and it was considered as a matter of the greatest importance whether these pins were of iron, steel, silver, gold, or platina, and whether the point was flat, rounded, or triangular—and you know well enough what an immense number of different hare-lip pins has been devised. Thus wasting much time and talent, in paying his whole attention to very unessential things, the surgeon neglected the most important point of the operation. And the time is not so very far back since we have been convinced that the success of a plastic operation does not depend on the material of the sutures, but that the direct adhesion is best secured by thoroughly excising and accurately uniting the edges.

The age at which the operation should be done, has also been the topic of discussion for some time. Now, however, surgeons generally, I think, agree that in strong, healthy children, the operation should be performed in the first three months; at least, before dentition, because an early closure of the fissure in the lip has proved to best remedy that flattening of the nose so commonly observed with hare-lips.

Thus, taking the question about the time best appropriate for the operation to be settled, there are three other points of interest in regard to the final result of the operation.

1. The way of paring the edges of the fissure.
2. The kind of stitches.
3. The treatment after the operation.

On each of these points there is still more or less difference of opinion among surgeons, as they claim to get equally good results by different ways of operating. I do not deny this fact, to be sure; but when a man wishes to get to any point, he does not ask only by which way he can get there, but he inquires for the shortest way. And so we must not be satisfied with a good result,

but we must ask, which kind of operation leads to a full success, by the simplest and safest way. And from this standpoint, gentlemen, I wish you would receive the following remarks on the features above mentioned.

I. PARING THE EDGES.

As I have already stated, this must always be done freely and carefully, in order to give any prospect for direct adhesion. But in regard to the permanent form of the lip, various ways have been tried to obviate all deformity, especially that very unpleasant, prolabial notch, so frequently left after an operation. You all are aware that this notch is occasioned by the cicatrice shrinking principally in its longitudinal direction. And you know also, that, as a rule, it is left if the incisions have been made entirely straight. But it is very likely to occur, also, in a somewhat broad cleft, although the incisions have been concave. *Malgaigne*, therefore, tried a more effective way to compensate the shortening of the cicatrice by cutting, at the lower end of the fissure, two small, angular flaps, which, when united, at first formed a small protuberance, that afterwards, as he thought, would shrink down just to a level with the prolabium. It is, however, impossible to know in advance exactly how much a cicatrice will shrink, and consequently we can never be sure whether we get just the accurate size of these flaps. They may be either too small, when the lip will become notched, or too large, when they will leave a protuberance as unseemly as a notch.

Now we have not to struggle with any of these uncertainties by following a plan of excising the edges of hare-lips, first suggested by *Mirault* and *Langenbeck* (French and German surgeons), a method which seems to me less known and practiced in this country than it really deserves to be.

The original directions were, that one small, angular flap (like those of Malgaigne's) was formed at the lower end of the better developed side of the fissure; the other edge was then pared off straight down in its entire length, and finally the prolabium of this side was refreshed so far as to correspond to the shape and size of that angular flap. But as such a small flap, sloping down to a thin edge, has not the best chances of healing on by first union, it is very advisable to cut off its thinnest part in a right

angle, and excise the prolabium of the opposite side also in a right angle, in conformity with this shorter rectangular flap.

This method perhaps requires a little more care and time than the other ones, but with some skill and practice it can be quickly executed in children as well as adults. It affords the same, if not a greater, safety of healing by first union, and it is superior to all other methods by completely preventing the prolabial notch; which it accomplishes, not by lengthening the cicatrice in order to compensate its shrinking (as Malgaigne and others did,) but by separating the wound in the lip itself from that in the prolabium. The consequence of which separation is, that the greater labial cicatrice—should it shrink ever so much—cannot affect the prolabium, while the scar in the latter is too minute to show any visible contraction. In this manner, as you see, the success of the operation is rendered entirely independent of all changes which subsequently may take place in the cicatricious tissue; and for this reason I consider *Mirault's* and *Langenbeck's* method preferable to any other.

2. UNITING THE PARED EDGES.

For a long time the twisted suture was the only kind used to unite the edges of a hare-lip; and it is predominant still, and considered by many surgeons (Dr. Gross e. g.) the only kind that should be used. Some surgeons, however, in Germany (Langenbeck, Simon, and others) as well as in England (Erichsen), have, in the last years, used the simple sutures with very good success. So says Erichsen in his "Science and art of Surgery" (p. 69):

"During the last few years I have been in the habit of treating hare-lips of all kinds, double as well as single, with the simple interrupted suture alone, without using any pins. I have in this way treated most successfully many cases in children, whose ages have varied from a few days to four years, with most satisfactory results, and with less marking of the lip than I have ever seen attend union by means of the twisted suture, to which I now generally prefer it, as being *equally safe*, *more simple*, and followed by less scarring of the lip."

I fully agree with these remarks. During five years of practice in the University Hospital at Heidelberg (Germany), I have had sufficient opportunity of comparing the value of both kinds of suture; for Chelius always applied the pins, while his successor,

Prof. Simon, used the simple sutures alone. And from these observations I have been convinced that the children suffered more from the pins, since they prevented them from sucking, and caused considerable pain, and were more likely to set up an excessive inflammation, that might destroy the fresh adhesion again by suppuration. Therefore the surgeon must watch their effect most carefully, and has to take out the pins forty-eight hours after the operation, at latest. This proceeding, even by the utmost care, cannot be done without the child screaming and crying—precisely what we have to prevent, by all means. Now, on the other hand, the simple sutures (of any fine material whatever) may be left in for four to eight days without doing any harm; they don't hinder the child from taking the breast, nor do they provoke any injurious inflammation; therefore they need not be removed until the cicatrice will be firm enough to resist all dragging upon during screaming. Why, then, if the simple suture has all these advantages, was the more complicated twisted suture ever used? Because it was thought the only effectual means by which all injurious tension could be obviated, and the raw edges kept in accurate apposition. Now, no surgeon ever thought of using pins in treating a cleft palate, where the conditions are pretty much the same. And the facts prove that we can succeed with the simple sutures, especially if we apply them in a double row, according to their double purpose to relax and to unite the edges. Thus, near the lower end of the fissure, and wherever a great tension is to be obviated, we introduce a suture which incloses in its loop the entire thickness of the lip, $1\frac{1}{2}$ lines from each edge. If we tie these sutures, they will surely release the wound from any tension; but the mucous lining and the skin would very likely double up. Therefore, to adjust the raw edges most accurately, some other sutures must be introduced in the space between the former, in such a way that the needle (strongly curved) is passed in close at the border of the wound, and carried through the lip in a short semi-circle, and brought out again without transfixing the mucous lining.

The simple sutures introduced in the manner just described, will unite the edges of any kind of hare-lips as safely as the pins, and all tension which cannot be removed by them without danger of their cutting through too soon, will better be obviated by lateral incisions, or by detaching the lips from the gums.

3. DRESSING AFTER THE OPERATION.

Dieffenbach has already said (Operative Chirurgie): "Any dressing after this operation is not practical; instead of securing the success, it often frustrates it; many lips have been lost by the undue pressure of strips of adhesive plaster." And I think he was right. Neither plaster-strips, nor collodion, nor cheek compressors, are any reliable means to obviate dragging upon the wound. Nothing is required but to keep the parts cool and the child as quiet as possible.

And so I have come to the end of my paper, whose object was to point out the safest, simplest, and least troublesome way of treating hare-lips. The result of which investigation I may sum up in these words:

The edges shall be pared according to Mirault and Langenbeck's method, and brought together with a double row of interrupted sutures. The child is nursed in the same manner as before the operation, and everything avoided that could make it uneasy. Therefore the wound is not cleaned nor examined by the surgeon until after three to five days, or later; the adhesion will be sufficiently firm. Then the sutures may be taken out; yet no applications of any kind are made, but the child let alone with his mother. Because we had better remove all causes for screaming and crying, than to try to obviate its effect, *i. e.*, the dragging upon the wound, by means which will always prove a failure.

ARTICLE VI.—*Cases in Electro-Therapeutics. Reported by* WM. J. MAYNARD, M.D., Chicago.

Earnest and well directed study has already demonstrated the fact that Electricity holds a high place in the treatment of disease, and it is truly encouraging to see what progress has been made in it, especially in the last few years. Besides the particular disorders of the nervous system, to which it has usually been applicable, it is making rapid strides in other departments of medicine. In giving this subject particular study of late, it has been my good fortune to have seen some remarkable cures made, and from my

own experience I present the three following cases, thinking they might not prove uninteresting to the readers of the JOURNAL.

Case 1. Mr. R. was sent to me by a leading medical gentleman of the city to see what electrical treatment would do for him, as all other remedies had failed to give the required benefit. The patient had been confined to his bed with typhoid fever, and during convalescence found that he had a partial paralysis of the left leg, with great anasarca. When I first saw him he was scarcely able to walk, but before six applications of the battery had been made he was able to walk several blocks comfortably, and with great diminution in the size of the leg. After twelve applications the patient was dismissed perfectly cured.

Case 2. At the request of the same physician, I was called to see Mr. D. Upon examination I found the left leg enormously distended by anasarca, great numbness of the entire member, with inactivity of the circulation. My success with the first led me to adopt the same mode of treatment, and although the pathological condition was entirely different, it was surprising with what rapidity the leg regained its normal condition after each application of the battery. After eleven sittings the patient was able to walk and attend to his business.

In these two cases, I do not attempt to deny that the general course of treatment at first adopted would, perhaps, after a lapse of time, have effected a cure, but I do claim that a far more speedy resolution was brought about by the electric agent. The great absorbing and alterative effect produced by the galvanic current is better illustrated by the following case, which it has been our pleasure to witness:

Mr. T., of this city, consulted me for the purpose of getting rid of a tumor, a little larger, perhaps, than a hen's egg, situated on the right side of the neck, along the anterior border of the sterno-cleido muscle. The tumor had been growing for a long time and seemed to be slowly increasing. The diagnosis that I made, *i. e.*, that it was an enlargement of the lymphatic gland, he said, was confirmed by the opinion of other physicians. As he had too great a horror of the surgeon's knife to yield to the general mode of extirpating these tumors, I must confess that I entered upon the electric treatment with not much confidence in the result. I

used a rather powerful induction current, and passed it transversely through the substance of the tumor. After a few applications, each sitting lasting about twenty minutes, there was a perceptible diminution in the size of the gland. With this encouragement, the treatment was continued until sixteen applications were made, when all that remained was a small fluctuating mass, which I punctured, and drew out some fluid which had every appearance of lymph. This continued to discharge for some time, but the patient is now apparently perfectly well.

ARTICLE VII.—*Cook County Hospital.* Reported by CURTIS T. FENN, M.D., Chicago.

Oct. 21. Pathological. Johnson. Thrombosis, terminating in death. (Case 11, Nov. report.) Inflammation of the wrists, shoulders, knees, elbows and ankles had resulted in terrible abscess of each of these joints. The destruction of tissue had been enormous. A slight murmur over the cardiac orifices had been detected soon after his admission. The inference had been that there existed a thickening of the valves, it might be from fibrinous deposit. On *post mortem* examination, it had appeared that the right cavity of the heart was filled with a colorless clot, extending into the branches of the pulmonary artery, showing that fibrine had coagulated without entangling blood corpuscles. The question had been, what produced the clot? Such clots were one of the acts of death; but they might be found during the last few days of life. A true mechanical coagulum might occur by the roughening of an orifice. Endocarditis might give rise to such effusion as to entangle fibrine. Evidence of acute inflammation of the lining membrane of both sides had been found. There was a morbid point on one of the mitral valves where adhesion had taken place. Probably this had been the point of departure for little clots, which had been swept off by the current of the blood and had been carried to the periphery of the circulatory system where they had become arrested. They had plugged the small arteries, and mortification had ensued.

Specimens. Post mortem pieces of an old man admitted for

chronic ulcers of the leg, and partial dementiæ. The urine had not been albuminous. There had been enlargement of the superficial vessels of the abdomen. The ulcers had been cured up, but he had declined in strength, and died. The *liver* was diminished in size, but not in weight. The left lobe was atrophied as it often is in scirrhus. The right lobe cut like a turnip, the resistance being unequal. There were fibrous bands extending into it, so altering its appearance that the specimen might have been taken for anything else as readily as for a liver. There was diminution of the hepatic vessels. A little, pinched, narrowed orifice showed where the vessels passed into the fissure. Cirrhosis of the liver gave rise to abdominal dropsy, but in this case the enlargement of the external abdominal veins had prevented such an arrest of the circulation. This condition was variously described, passing as nutmeg liver or hobnail liver. This man probably had drunk distilled liquor. Germans living to be fifty years of age were apt to have fatty liver. Irishmen had cirrhosis, for they took whisky "*straight*." How did dram drinking produce this liver? If a person took alcohol on an empty stomach, it was speedily absorbed and went to the small vessels as a direct local stimulant; and this, kept up for days, months and years, produced the inflammation. The *kidneys* were somewhat enlarged; there was increase of specific gravity and quite deep congestion. They had become the seat of inflammation from precisely the same cause. The *spleen* weighed 2 lbs. 3 ozs. and 5 drs. The liver being non-distensible, the spleen had received the excess of blood. The *heart* was normal, shown for comparison. No clot. Bands of pleuritic origin formed pockets of membrane between the pleural surfaces. These were the results of a somewhat hasty study of the specimens before us. They would have repaid a further examination.

Surgical. Powell. 1st Case. Stump after reamputation of the thigh. Following the operation, there had been a bulging of the flaps, which increased till the third day, when they were laid open, and a large clot of blood was turned out. On washing the exposed surface, a little bleeding artery had been found and tied. A strong watery solution of carbolic acid had been used. It had whitened the tissues. The flaps then had been drawn together, but not closed. The patient knew too much about the accidents

that might come to stumps for his own good. Treatment: beef-tea and opium, with quinine. Opium had a better effect thus by acting on the skin. Lessons to be learned: 1. Never to close till the bleeding has ceased. 2. If hemorrhage has occurred, never to hesitate to open, and turn out and wash. 3. Carbolic acid had been extremely useful, lessening the discharges and promoting their healthy character. The stump had rested on oakum, under carbolized water. After the first two or three days, carbolized water had been omitted on account of the pallor of the edges of the wound, and lessened circulation. No perturbating treatment whatever. The wound was to be dressed simply as possible. Flaps which were left open healed better; they closed up from the bottom. The most successful surgeons did no more than to draw the flaps gently together. If the clothes should stick, we might use a little bit of simple cerate. The bandage would prevent spasm.

Case 2. Another stump. As nearly as could be learned, this man had had a sore of some kind on his thigh, which proceeded from the bone. An attempt to remove it had resulted in a fracture of the femur. The bone had failed to unite. Two months afterwards it had been amputated. The stump had healed; but, six or eight months later, an ulcer had broken out on the end, having the characteristic odor of epithelioma. The ulcer at present was deep, and spreading over the end of the stump; the surface was exceedingly irregular and ragged; the discharge was thin and sanious; the odor was characteristic. The microscope had not detected what, at the present time, was considered a cancer cell—namely, a large cell, with a nucleus corresponding in size and shape, and a nucleolus. But the microscope had lost caste of late in cases like this. If all the microscopes in the world should fail to detect the cancer cell here, he should say it was cancer, from the odor. The removal of cancer had the effect to delay the case from eighteen months to three years, and occasionally it did not return. In thinking of what was to be done, it was best to tell the patient candidly what there would be, namely, a delay of his fate for a few months only. In the meantime, we should use carbolized water as a disinfectant. The hospital had afforded one case of hip joint amputation last year. The subject had died twelve months

after the operation, of disease of the lungs. There could not well have been a more unpromising case for the operation than that was. This man would have a good chance if he submitted to a re-amputation at the hip joint.

Case 3. Street car injury. An elderly man, not a laborer. A pretty deep lacerated wound on the inner aspect of the thigh, near the knee, an apparently trivial flesh wound, but really a serious thing. The case presented an angry, bad look. The skin was dead, and gangrenous matter was coming out of the wound. The face was flushed: pulse, 108. Injuries occurring in persons a little irregular in their habits were by far the worst, on account of the danger that gangrene and pyæmia might occur. If this wound were laid open, dead muscle would be found extending far up the thigh. This patient ran two risks; the first from pyæmia, the second from hemorrhage, as the slough would be near the femoral artery. Such a wound should not be stitched. The freer its discharges the better. There was little feeling in the leg, and a decided lessening of the temperature. Treatment: Beef tea, milk, and the stimulant he had been accustomed to. If mortification should occur, free incisions and carbolic acid. Carbolic acid might retard a separation of the slough, but it certainly prevented extensive discharges, from which exhaustion occurred.

This patient presented also a *tumor of the scrotum.* It was not a cancer, nor a sarcocele, nor a hernia, nor a varicocele. It was, evidently a hydrocele. This was a pear-shaped tumor, giving fluctuation and transmitting light. The scrotum should not be laid open in hydrocele; for thereby the cavity of the tunica vaginalis would be destroyed. A large, irregular corrugated cicatrix would remain, and, lastly, cases were cured by injection. If this man survived the leg, the hydrocele might be dealt with.

Oct. 25. Medical. Ross. 1. Case, just admitted, a woman with dropsy of the feet, existing fourteen days. The lecturer said that it must have had its origin in the heart or kidneys. The pulsation of the cervical veins was noticed. By percussion it was found that the heart extended one and a half inches to the left of the nipple. The impulse was very feeble indeed. A loud, blowing murmur was heard all over the precordia; loud at apex and base, and propagated along the sternum. The murmur was heard over the carotids. The history elicited showed that she had

been troubled in her breathing for eight years. She had complained of pain in her shoulder, and of numbness in her left arm. The heart was greatly enlarged and the pulse feeble. It was not hypertrophy, but dilatation. The only medicine indicated was to be directed to the anæmia. No active diuretics or cathartics could be of any avail, for the dropsy had come on in the last stage of her disease, and would be fatal in a little time.

2. Case, of interest in diagnosis. The patient had been admitted one year ago, and was now employed as a nurse. There was great disparity between the two sides of his chest; the left was fully dilated on forced inspiration, while the right was not. There was no effusion of pleurisy, for that enlarges. The respiratory murmur, although weak, was heard all over, and was soft, and of the same quality as that on the other side. There was no cough. He had some difficulty in breathing. On examination of the heart there was found a distinct murmur at the base. Could an aneurism have been the cause? A swelling in the ascending aorta might encroach on the right bronchus. There was a whizzing sound detected over the region of the right bronchus, quite different from that heard at the base of the heart. There was no disturbance of the circulation. It could not, therefore, have been of the transverse or of the descending portions. The patient had been improving by time.

Surgical. Powell. During the last two weeks two cases of hydrocele had been lost to the clinic. They were young men from the country coming to enlist. They had been sent here to be cured, but being told soon after admission that it involved a serious operation they left.

Alluding to the case of a child run over by the street cars. Opium to relieve pain, dry heat, and any means to stop hemorrhage, were the best means to allay shock. He would not give alcoholic stimulants.

1st Case. Compound fracture of the leg. Sailor. A heavy spile struck him from behind. It was observed how all fractures of the tibia are exceedingly oblique, the lower end of the upper fragment always coming forward. Malgaigne had a machine for screwing it down. If prominent in a compound fracture, it would be better to saw it off. A suit for malpractice had been on the

docket for the same thing; but it would be good practice The opening might be enlarged, if necessary, to get the bone back; then we should close the wound carefully, and, if possible, procure a simple from a compound fracture. We should not be afraid of any redness or a little inflammation. It is nature's way of healing. We should not put cold water on, as a rule, for by it we may chill the part and prevent the healing; but a rag may be wrung dry and placed on the wound if the patient desires, for that soon gets warm. The limb should be placed in a fracture box, with sides to be let down for cleaning. No perturbating treatment whatever. Diet of anything he chooses, and opium to relieve pain.

2d Case. Street car injury, seen four days ago. Moribund. The thigh and leg gangrenous and pulseless. Not shown, but cited to illustrate the serious consequences of such injuries.

3. Case of a woman whose toe was amputated some days ago, with a good result, compared with the case of a man who had erysipelas and palmar abscess following amputation of a finger. These results depended on the condition of the patient rather than on the skill of the surgeon.

4. Case of loss of tissue of the neck, resulting from erysipelas. On admission there had been a considerable cavity dissected between the sterno mastoid muscles near their origin. The posterior surface of the base of the sternum had been uncovered. A bad cicatrix remained.

5. Case of a woman with necrosis of the extensor tendons of the hand, from erysipelas after a bite. The result would be a stiff hand, better off than on.

6. Case of acute orchitis, shown one week before; treated by a forty-grain solution of nitrate of silver, which had been applied with a camel's hair pencil, and covered with cotton. The result had been very satisfactory—immediate relief of pain and swelling. These cases, treated heretofore by strapping, would be made to test the merits of nitrate of silver, so much vaunted of late.

7. Case of abscess in the groin, ready to open; presenting all the appearance of a bubo. It is a bubo, but without a specific origin. This man was a coachman; he received a stroke from the shaft of a carriage.

Oct. 28. Pathological. Johnson. Case. Locomotor ataxia, from the outside dispensary. His gait and manner of sitting were observed. He had been taken for a drunkard a hundred times, though he never drank. He was worse at night. There was an unbinding of the organs used in locomotion. The statements of pathologists were widely different as to the changes of structure in this disease. A careful examination as to the consistence and quantity of the blood distributed, the character of the nerve cells, the conditions and relations of these, always showed some disintegration, softening, or degeneration. There was, finally, a molecular change in the muscular fibres themselves. They became wasted in volume. The articulations became loosened, and spontaneous luxation sometimes occurred. A case was cited in which both hips were thus dislocated in one night. Nutrition failed. Atrophy begun, not only for want of use, but for want of that, a supply of which, in a measure, affects nutrition. Some writers attempted to confound progressive muscular atrophy with this disease; but progressive muscular atrophy commenced in the periphery—this in the centre. Progressive muscular atrophy sometimes affected one muscle; this affected the whole system of muscles. This and that were quite different. This was *ab initio* a central disease.

Post mortem specimens. Lungs. Emphysema. Pieces passed. The first thing to be received in pathology was, that every morbid specimen was clean. The air vesicles were large. The lungs did not collapse when an opening was made in the chest. Vesicular emphysema consisted in vesicular dilatation; it might be by general dilatation, by stretching of septæ, or by dissolution of the walls and coalescence of the vesicles. The fact was, that the vesicles coalesced in multitudes, for we saw large bladders of air. It was more apt to begin in the upper and anterior portions of the lung, giving prominence to the inter-clavicular spaces, and producing the barrel-shaped chest. Sometimes there was a dilatation of the bronchial tubes, but these cases were not necessarily connected. The apices were studded with tubercle and hardened masses of cicatrices, also. How was such a case produced? The case was perfectly normal in the conjunction of these two affections. Valieux says that we almost always have some emphysema in tuberculosis. Many authorities denied it, but it was true. The

theory of Valieux was, that a tube becoming plugged, the air which is intercepted passes into a neighboring tube, resulting in too great pressure, and the breaking of walls. (Discussion of other theories. Weight of authority said to be balanced.)

Surgical. Powell. Case of a Dutchman, who, with his wife, had been run over by the cars at a railroad crossing. Admitted in bad condition, with a compound fracture of the leg. He had been a long time poised between life and death. While waiting for a better condition to arrive before amputation, Dr. Powell had performed a little operation of conservative surgery. The ends of the bones, badly necrosed and overriding, giving rise to a large amount of suppuration, had been cut off, and an attempt had been made to press the fragments down more nearly in apposition; but they could not be kept in place, so the bones were left to themselves. Finally, the leg had been put in a starch bandage, and the man sent home. To-day he came back well as ever. Shown to illustrate what can be done by a little perseverance and conservative treatment.

Nov. 1. Medical. Ross. Case 1. Cancer of the liver. The patient having been sick almost a year came into the Hospital with a large tumor in the abdomen, and a cough of a peculiar character. It had been concluded, from the cachexia, nodular swelling, and great pain in the liver, that it was cancerous. Pain was a symptom in cancer of the liver which distinguished it from waxy liver. A few days ago he had been taken with diarrhœa, and bloody stools, followed by great diminution of the tumor. The case would prove rapidly fatal.

Case 2. Typhoid fever, taken three weeks ago, shown on account of great tympanitis. The pulse had been as high as 140, and there had been great prostration and accompanying delirium. The patient had improved under alcoholic stimulants, beef tea, and milk. There was tympanitic resonance all over the abdomen, and a good deal of tenderness in the right iliac fossa. The tympanites in this case produced pressure on the diaphragm. It sometimes oppressed the circulation. It was important to look out for this. He had taken turpentine emulsion to control diarrhœa. Cloths sprinkled with turpentine had been applied over the abdomen. Sometimes, enemas, containing a little of the oil, had been

administered. He had likewise taken 1-32 of a grain of strychnia, 2 grains of quinine, and 3 drops of nitric acid, three times daily. The tongue was still dry and fissured.

Case 3. Remittent fever. Without entire intermission, the fever was generally better at night and early morning. The treatment was very simple, the great matter being diagnosis. Sometimes great irritability of the stomach was allayed by calomel, but this symptom was caused by the fever. Give quinine in large doses, and frequently. We should not wait, but give quinine during the fever, in order to lessen, and finally to break it. If the symptoms should be modified while the fever continued, then we might treat as we would continued fever. There were a few cases that could not be cured at once with quinine; but, notwithstanding the blood was so changed, if these cases were taken in time, quinine would cure them. Palliatives, cold to the head, neutral mixture to allay irritability, and opium at night. Sometimes the stomach would not bear acid. Then we should give quinine without acid. In this case the fever was broken. Quinine needs to be continued in small quantities three times daily.

Case 4. Typho-malarial fever. Convalescent. When admitted he had presented the appearance in every particular of remittent fever. In the course of a little time there had come up every symptom of typhoid. It had commenced as malarial, and seems to have had grafted upon it typhoid. After the treatment of remittent fever, we should give the acid treatment of typhoid, in such cases.

Case 5. Acute Bright's disease. Negro. When last shown he had been convalescent, while taking a little jalap and cream of tartar and a hot air bath daily, but from some cause he had got worse. The fever became high, the skin hot and dry, urine suppressed; terminating in uremic convulsions, and coma. The drawing of thirty ounces of blood had given him complete relief. This was an instructive case. It had been impossible to administer medicine. He had been saved by bleeding. Blood-letting was the great remedy in uremic convulsions. This patient had had an active cathartic as soon as it became possible. He immediately had seemed about as usual before the relapse. Since then, hot air baths and mild laxatives had been resumed. That linen

shirt which he was wearing might have been the cause of his taking cold, though every precaution had been taken to protect him after his baths. He ought to have been dressed in flannel. He was now almost well again.

Case 6. Opium eating. A slender youth. He used to take two grains of morphia at a time four years ago, and finally twenty-five grains of opium had been required to meet his longing. At last he had tried to break off. He had been sent here from the Bridewell for malingering. He had not had any opium for four or five days. Shortly before his admission he had been taking ten grains of opium three times a day. He now took thirty grains of bromide of potassium, four times a day. He said he felt a sinking and gone sensation in his stomach when deprived of his accustomed allowance. We should be on our guard against opium or morphia in chronic disease. The use of the bromide of potassium would be continued, for that was a remedy which could be broken off with greater ease. It relieves him of his nervousness.

Case 7. Typhoid fever, complicated with broncho-pneumonia. The injected condition of the cheeks, generally present in pneumonia, observed. There was dullness on percussion over the lower portion of the right lung. No very active treatment could be had for such complications. We might, besides the treatment for typhoid, use a poultice or else oil silk and flannel. Afterward if anything is done, we might give a stimulant expectorant, as the carbonate or the muriate of ammonia. Sometimes quinine, sanguinaria, and Dover's powder—nothing depressing.

Surgical. Powell. Case 1. Re-amputation of the thigh at the hip joint. This subject was introduced to the clinic one week ago, as a case of cancerous ulceration of a stump of the thigh, about a year after amputation, for supposed necrosis of the femur, (Case 2, Oct. 2.) He had borne the former operation exceedingly well. A good result again was expected, and through it a prolongation of his life. The abdominal tourniquet was not considered at all necessary, though it had served a useful purpose. The artery might be compressed with the thumb at either the umbilical or iliac region. A great variety of operations were

mentioned. The anterior and posterior flap method was recommended as suiting best. There were objections to it, however. Celerity was no object since the introduction of anæsthetics. Last winter the operation had been performed in forty-five seconds. The subject, a small man, cachectic, aged about forty, was given a few swallows of whisky and the operation was commenced. Chloroform was administered by the house physician and his assistant. Dr. C. T. Parkes controlled the circulation by digital compression of the aorta. Dr. Ben. C. Miller took the stump. There was no trepidation or haste; deliberately but surely the different steps of this trying operation were taken. The shock and exsanguination were profound. Reaction took place, and recovery began.

Nov. 4. Pathological. Johnson. Specimen of malignant disease of the liver. Weight of the liver, 12 lbs., 10 oz. Sometimes nodules were felt beneath the ribs; not always. Here they were perceptible by taking hold of the border of the liver and pinching it. There had been œdema of the lower extremities, but no ascites. The hepatic vessels had been probably unimpeded. When cut into, the liver had a yellowish appearance. It required the microscope to make out the nature of these changes. It looked like a fatty liver. Some spots had decidedly the appearance of cirrhosis. Microscopic examination of the juices, scraped from a cut surface, discovered an abundance of those forms peculiar to cancerous growth. What constituted a cancer cell? 1. A cancer cell was a large cell, relatively, 1-2000 to 1-500 of an inch in diameter. It had no peculiar form, it was spheroid, ovoid, caudate, stellate, fusiform. 2. It has one or more nuclei, relatively large also. Epithelial cells had small nuclei. A perfectly formed cell was rarely to be met with. 3. A nucleolus. All highly refractive. Granular matter was always formed in the cell, in the nucleus and around the nucleolus. The microscope was not always available. In certain forms of cancerous tumors a large cell could not be found. In such cases the clinical history of cancer must be obtained. In the specimen considered there were free nuclei in excess. Nuclei and nucleoli were subject to great diversity in size. The presence of these free nuclei in excess, with the clinical history, furnished infallible evidence of cancer. Clinical

history had to be taken into consideration in other cases, studied very satisfactorily by means of physical exploration. The microscope furnished just the kind of evidence that the stethoscope and pleximeter did. It might decide operations. If the physical signs in diagnosis are not neglected, neither should the revelations of this invaluable instrument be ignored.

Specimens. 1. Aneurism of the ascending arch of the aorta. Death, one year ago, caused by rupture into the œsophagus. The stomach was full of blood at the autopsy, and the patient had vomited three pints just before expiring. This tumor had compressed the left bronchus, so that the respiratory murmur was absent except in forced respiration. Pressure on the œsophagus made deglutition difficult, but he could swallow solids better than liquids,—a somewhat unusual fact. Rupture into the œsophagus occurred in seven per cent. of such cases of aneurism. The well preserved wall showed the characteristic laminæ of fibrine. The true cardiac sounds had been transmitted through the sack as through a stethoscope.

2. Dilatation of the arch of the aorta, a great constriction existing further on at a point where there had been atheromatous degeneration. The constriction was now the seat of calcification. This was a dilatation and constriction, not an aneurism. The semilunar valves of the left side were roughened and thickened by the same degeneration. As the blood passed, there had been aortic regurgitation and a direct or obstructed aortic murmur, heard down to the fourth lumbar vertebra. These murmurs were sometimes heard at a very great distance.

Surgical. Powell. The man on whom the class saw him perform the operation of amputation at the hip joint four days ago, was in a favorable condition to-day. Pulse about 80; discharge favorable. The surfaces exposed by the operation had been touched with carbolic acid. Two things had followed: little discharge and little pain, for carbolic acid was a local anesthetic, as all who had spilled it on their fingers knew. The patient was kept quiet; light diet, as much beef tea as he could take, and a bottle of wine at his side from which he drank as he was inclined. The man was exceedingly cheerful and happy.

Case 1. From the Dispensary. A young man who began,

four years ago to notice pain in his right side at night, a burning pain across the lower part of the bowels, and frequent micturition at night, "six or seven times inside of a minute." Since then he had had gonorrhœa. He said he had been sunstruck two years ago. He had lost flesh, had had pain in his head, back, and limbs. The symptoms were chiefly referable to the genito-urinary organs. Such cases must be examined very carefully. We should run over in our mind what it might be, cystitis, calculus, prostatitis. Prostatitis hardly ever occurred in a young person. Examine the urine; sound and discover the seat of pain. Speaking of the difficulty of detecting stone at all times, he cited the case of a gentleman from Minnesota; his brother, who was a physician, had accompanied him to Philadelphia, consulting the most eminent surgeons there. Thorough search for supposed calculus had been made by them all. No satisfaction had been obtained. He had received their written opinion to the effect that no calculus existed. He had been examined here likewise, afterward. It was an extremely aggravated case. Dr. Powell had been convinced that he detected a stone enfolded in mucous membrane upon the anterior surface of the bladder. An operation had proved it. He had removed a very large calculus from that situation. The man had been cured and sent on his way rejoicing. The case was cited here, to illustrate one of the difficulties of diagnosis. As to the case before us, if it were cystitis there would be great pain. We should be careful in the use of the sound, using no force. It had been thrust through the walls of the bladder. A little finesse and an acquaintance with the anatomy of the part were required. There might be a stricture and cystitis in consequence—here the sound was introduced—once in the bladder it produced no pain, but the patient complained bitterly when the point of the instrument arrived at the neck. No stone was found. Soreness at the neck of the bladder the only thing of which information was gained. The patient would be admitted to the Hospital, and the case would be deferred for further examination. Treatment: warm hip baths, and a sound passed and allowed to remain fifteen minutes each day.

Case 2. Ingrowing nail. A lad who had been wearing a tight boot. These cases were troublesome and painful. If the

nail should be cut, the deformity would be made worse by it. A large number got well by letting alone, the nail finally riding up out of its place in the flesh. Operation: Chloroform; a portion of the nail extirpated with knife and scissors.

Case 3. Result after amputation of the leg. Would some one of the class tell whether this was a circular or a flap amputation? (Answers did not agree.) It was a circular. Flap amputations were longer in getting well; suppuration was greater, and there was more danger of septæmia. The fault with this had been, a little too short a flap of integument and obliquity of the cut surface of the bone. Still it only needed a little time to result in a fine stump.

Case 4. Swelling in the groin, large, almost diffuse, some little evidence of suppuration. The patient had not had syphilis. As a rule, the statements of persons of this kind may be taken, for, if they have had syphilis, they do not hesitate to acknowledge it.

Case 5. Brought in, both walking and looking like a drunken man, but he was not intoxicated. His horse had run away with him that day. When picked up he had vomited quite a quantity of blood; he had vomited, too, as he came in. He was laboring under some serious injury. Any lesion of the head, a slight scratch, might be followed by grave symptoms. A case had lately occurred at the Rolling Mills, in which paralysis, coma, and death supervened ten days after a slight injury to the head. But there had been cerebritis all that time. This man would be allowed time for reaction, and would be shown hereafter.

Case 6. Of palmar abscess or felon. A young woman. The only safety was in making a free, early incision. If only little punctures were had, there would be burroughing instead of escape of pus.

ARTICLE VIII. — *Satan in Society.* By a Physician. (First American Edition, and we hope the last.) By VOLTA REEKE.

It is with some pain, and loathing too, that we finish a hasty perusal of this work, handed us a few days ago by a friend. Pain, because we have much faith in the inborn purity and goodness of human nature; loathing, that a man should exist, and he a physician, to produce such a mixture of falsehood, illogical trash, and bawdy nonsense, and then have the assurance to declare that he hopes and desires it may be read by all classes of the community—male and female, young and old—as an almost specific cure for the evil ways they are pursuing, and for the vices they have acquired. It is on a par with several books of like character, written in the last few years, under the cover of scientific authority, insidious, untruthful, with clap-trap titles, and made for sale. It is not one whit more decent than the *Police Gazette*, and other low pictorials of the phosphorescent style, and stealing into the family circle under such disguise, does more to corrupt and degrade, and turn the thoughts of the growing generation into impure channels, than all other causes or associations put together. He quotes the misogamists, the misanthropists, the *debauchees*—Balzac, Michelêt, Tissot, Legouvé, and others—of the French school, to sustain him in the many peculiar opinions advanced; yet despite such philosophical aids—and many of them not used in their proper connections—we cannot see one position legitimately tenable, not one argument spun to a perfectly logical conclusion, as his premises are false to build on, are opposed to the observation and experience of many learned men, and hence, end in the *reductio ad absurdum.*

We speak particularly here of the first six chapters; the remainder of the work is compiled from the best authorities, well written, and unfortunately gives an air of respectability to the whole. There pervades, throughout, a vein of christian sentiment, which is one-half bigotry and one-half cant, throwing a very strong doubt over the author's sincerity, and leading one irresistibly to the conclusion, that money is the sole object, and not the welfare of society.

It is unquestionably an evidence of caution, and sense too, that our author resisted so manfully the solicitations of his many ad-

mirers and friends to publish his name in connection; for we agree with him that, if the public has any self-respect or decency left, it might render a verdict which would seriously interfere with the harmonious relations of his extensive *clientèlle*, and endanger, to the extent of many dollars, his future welfare and happiness.

The first point that struck our attention was his quotation from Legouvé, and on the next page from Balzac, where they discuss the wedding night, and all assume that the precipitate consummation of marriage is a *rape*, and that instead of love and reverence following, only hatred and disgust is engendered. To sustain such a position for a moment, we must of course pre-suppose every woman a timid, ignorant fool, and every man a brute of the worst stripe, who rushes to the attack like an aggressive stallion, utterly regardless of the feelings of her, whom in love and honor, he has just taken for weal or woe, and without any of those marital endearments necessary to soothe, and gain consent. This is to take entirely a too brutal view of the question, and is not true in fact. Of the various causes producing estrangement among married people in after life, this is assuredly the least frequent. And the "skeleton in the closet" does not wag his grinning jaws, nor shake his clanking bones, because the husband worships prematurely or too often at the shrine of Venus, but rather the converse holds good. Legouvé and Balzac, are very Frenchy, and speak more from a false morbid philosophy, than from the actual experiences of life, and when the latter lays it down as an axiom that, "the husband who begins with his wife by a *rape* is a lost man: he will never be loved;" and our author groans out plaintively: "Alas! what else is the ordinary consummation of marriage, but a legalized rape?" we can only exclaim, Shade of Priapus! howl out your dissent to these madmen and pretenders, and tell them that rapes are uncommon and unfashionable now-a-days, and never occur except when extortion or blackmailing is the object. Approach, and ask in fitting terms any married woman—and we mean woman in its truest and most acceptable sense—she will laugh at such an absurdity; and will tell you, moreover, that such precipitation is not only expected, but allowable, and that she who expects otherwise is a rare exception. We know that brutes exist, capable of committing almost any atrocity, and likewise capable of a *rape* on their own or others' wives, but they are not the gen-

eral rule, as our author holds, being few and far between. And in connection with this subject, let us advert to his remarks on the nuptial chamber, in his admonition to husbands. Here again, his advice to that individual upon crossing the sacred threshold, gives one the impression that his experience—and to read his cases, it is really the fact—of married men proves them all lecherous satyrs, who no sooner know their brides abed, than with a whisk of their tails (coat) they enter, barricade the doors, hardly stop to take off their breeches, and furiously attacking their shrinking victims—who of course are not aware that *men* differ physically—soon turn the fair nuptial chamber into a slaughter-pen, tearing, bruising, mutilating without mercy, and only ceasing through exhaustion or satiety. We have very little to reply to such nonsense, except to assure our author that most married men find room enough to prevent all this mutilation, and all recognize the fact that the tissues to be forced are very elastic, and will stretch a yard before they will tear an inch. Should much soreness be left, a dash or two of cold water, and several ounces of Goulard's Extract will complete the job. He speaks in fitting terms of those "diabolical inventions," and of every artificial way of preventing conception, but invalidates his whole argument, and casts doubt upon his sincerity, when, a few pages further on, he tells all who do not wish children, of fourteen days grace between the menstrual flows, when they are exempt from danger, and when they can peg away like guinea-pigs, *ad nauseam;* at the same time he exclaims, if this interval is not sufficient, "*where the necessity exists*, the man is a beast and should be resisted at all hazards." Before discussing this further, we will introduce an anecdote to illustrate his position: Two planters were returning by the river to their respective plantations, the one accompanied by a fine looking, athletic body servant, whom the other noticing, requested to be left on his place for a few weeks, as he much desired some of his stock. The owner being agreeable, called up Jack, and submitted the proposition, to which Jack replied, scatching his head reflectively: "Well now you see, Massa, I'se willin', den dey don't call upon me more dan eight, ten, or twelve times in de night; but, if dey wants me more dan dat, an' wants me to make a *beast* of myself, I can't do it, no how." Jack was right, and would not be made a beast of, and our author is right in counseling resistance "at all hazards" to the

husband who would make a beast of himself. But, to digress no further, we shall view this question in a still more ultra light. Firstly, that the conjunction of the sexes is a wise ordinance of the Almighty, to perpetuate the human race, and the mere physical pleasure is subordinate, and in no way to be taken into consideration. Secondly, that any measure, artificial or otherwise, (whether by "diabolical inventions," or by advantage of the fourteen days season) to prevent conception, is both sinful and criminal; and, Thirdly, if children are desired, go ahead and beget them—herein lies no sin—but if otherwise, there must be absolute and unconditional continence, and if this can be secured in no other way, castration must be resorted to.

We think our argument is far the soundest, and not only allows of no deviation from the straight and narrow path, which every christian should follow, but brings itself to a strict logical conclusion. Though no churchman, which our author evidently claims to be, we do not hesitate to urge him to adopt our view in his next edition, as it is fast becoming necessary to regenerate the world in this respect, and that the conjunction of the sexes, without a proper natural compensation, must be "resisted at all hazards."

As to abortions, miscarriages, etc., no one could look upon them with more horror than ourselves, but when the author, taking the ultra church doctrine, declares that they are never permissible, we know him to be insincere, or a bigot. Because a man's judgment may be faulty, and mistakes sometimes made, must no interference take place, and mother and child both be sacrificed? My good sir, you know that there is no better established axiom in midwifery, than "that the child should be sacrificed to the mother," an axiom established by the observation, experience, and humanity of the most learned men many years back, and endorsed by the good sense of every one, who takes a proper view of the comparative worth of both lives; and it does not alter this fact a particle, because incompetent men creep into the profession, and sacrifice lives, that could be saved by the better educated; it simply warns us of the great responsibility placed upon our shoulders, and that it is our duty to study, and reflect, and counsel, to fill conscientiously the vocation to which we have been called. This reasoning is similar to the withholding of anæsthetics from lying-in women, simply because God had declared they should bear

children in great pain; and might be equally applied to the practice of every medical man, since illness descends to us "as the sins of our fathers," or comes to us from the obvious infraction of moral or physical laws.

The author dwells learnedly upon the education and training of boys and girls, and though we agree with him as to the many defects in our present system, yet, it is only the out-cropping of our system of civilization (?), and until parents will cease allowing their children to be men and women before they lose their bread-and-butter odor, or get fairly dry behind the ears, there seems to be no help for it. Christianity takes very little part in their education; and so long as ministers of the gospel are engaged in every other pursuit than preaching the truths of the Bible, and the precepts of the Saviour; and so long, too, as physicians, afraid to lose the almighty dollar, lack sufficient moral courage to enlighten and guide, just so long must these evils last and increase. Yet despite all these drawbacks, the author's sweeping assertions and wholesale denunciations of boarding schools are exaggerated and unjust. The vast majority of boys and girls, whether they go to said places or not, acquire a certain amount of wickedness, and many are guilty of self-abuse, and continue it more or less until the development of their reasoning faculties teaches them its immorality, and the future danger and disgrace accruing from its continuance; but we believe that very few retain the habit after reaching mature life, and the percentage becomes still smaller after marriage. That he can point out the onanists of any school, is absurd, for the persons guilty of such an excess as to exhibit unequivocal objective signs are truly *raræ aves*, and all of those fearful evidences of mental wreck and physical decay so feelingly depicted, are seldom encountered by those who make special study of diseases of the sexual system. Every case he quotes, and every one he introduces from his own case book (one among many hundreds, he says,) are very extreme; and out of a large practice of seventeen years in hospitals, etc., under, and in company with the most learned men, and with a special attention given to such branches, we have seen but three or four examples, and none so extreme as our author's. We therefore dismiss this part of the subject, having given it more attention than it deserves.

And now as to "conjugal onanism" we desire to say a few

words. He appears to mean by this term the incomplete performance of the marital act, no matter by what means accomplished, and very properly censures any such short-comings, but the grounds upon which he reprehends the perpetrators, are the physical injury to both parties; the diseases which it engenders; the unsatisfactory state of the woman after being stirred up, etc., etc. That it is a very unsatisfactory proceeding to both sides there is no question; and that "withdrawals" should be at a discount, is equally granted; but that cancer of the womb is generally occasioned by its congestion, not being relieved or washed out by the specific influence of the spermatic fluid, and that so many inflammatory conditions, not only of the womb, but its associated organs, should be occasioned likewise, the facts of physiology, and the etiology of the various pathological lesions, absolutely deny. It is now generally conceded, that excesses in sexual enjoyments are creative of the greater amount of inflammatory disorders, as much from the actual physical contact as from the nervous excitation. And that abortions are produced by the same causes, is also true; but that incomplete acts are more injurious than complete ones, we no more believe than that universal masturbation produces such terrible sequences among the community, or is carried to such frightful lengths, otherwise our hospitals, asylums and mad-houses would have insufficient accommodations for their numerous victims.

His doctrine of acquired resemblances between parents, he claims to be original, and holds these resemblances to be occasioned by the impregnation of the mother's blood at each successive pregnancy, by the father's, through the fœtus. This opinion is rather far-fetched and transcendental, for we had supposed that the fœtal blood was elaborated by the blood-making organs of the child itself, and simply received its purification from the maternal placenta; at the same time might transmit and receive, through mysterious nervous influences, some of those qualities and susceptibilities which it had obtained from the impregnating fluid. People who live together in perfect accord, and whose thoughts and desires often run in similar channels—who, in fact, get in perfect *rapport* with one another, very often acquire resemblances, not only physically, but mentally, even if not married; and this will

in all probability account for these changes as plausibly as the blood-impregnation theory. The remainder of the work is well compiled, contains many good suggestions, and relieves in a measure the filthiness and absurdity of its foregoing portion; but, at the same time, we cannot help protesting that such literature should be published and circulated among the community. It is certain that the young man or woman that reads this work, will not only discredit much that is advanced, for their limited knowledge tells them differently, but it will excite a prurient curiosity to know more, and soon books of a still viler stamp will be devoured to their utter ruin and destruction.

For some time while reading, we were at an utter loss to discover to what particular sect or branch of medicine our author belonged; but the ear-marks of his vocation soon became apparent as we proceeded. And when we read through the case of the "Conjugal Hero," and the foot note explaining the philosophy of his wife's disease, we knew no physician educated in scientific medicine could have so jumbled up his pathology, and simply placed so many lesions of such important organs, and so many of them too, to the account of general or systemic irritation.

Besides, he went back on his own, by modestly disclaiming any cure in the case. When men for a succession of years treat symptoms as so many separate entities, they soon forget their pathological knowledge, if they ever had any, for there is not the least use for it; and hence are rarely honest enough to dis-acknowledge a cure in every case, even where diseases are self-limited, and get well by the *vis recuperandi naturæ*.

The dedication of this work is rather amusing, and that our readers may have the idea, we give it *in toto*, with some little change of our own:

To
Hon. William Sprague,
Ex-Governor of, and United States Senator
From, Rhode Island,
This book is dedicated.
Not to the Statesman (Ha! Ha!), the Politician (Ho, Ho!),
Nor the Millionaire ([?] Bosh!)
Nor even to the friend of former years;
But
To the Man (Bah!)
Who does prefer Gin and Sugar to Popularity.

——— Un dessein si funeste,
S'el n'est pos digne d' Atree, est digne de Thy este.
(*Crebillon.*)

Selection, and Comments.

Opium in Metro-Peritonitis. By Theodore Griffin, M.D., 529 State street, Chicago.

Appreciating the fact that it is only by recording and giving to our brethren the results of carefully-observed experience in the treatment of disease, that true and reliable progress is made in therapeutics, I offer for consideration my record of the following case of metro-peritonitis, treated with opium.

I present it briefly and without comment, as a link added to the chain of evidence in favor of the use of opium in this fearful disease. I was led to the employment of large doses by the plain indications to be fulfilled, which I know the physiological effect of opium would meet, bearing in mind this fact, which I think should become an axiom: *if indications are scrupulously met in treatment, no drug poisoning, with its disagreeable and dangerous perturbations, will occur, howsoever large the dose of the drug may be.* It is a lamentable fact that indications are often *more than met*, as occurred at the close of this case through the ignorance of the nurse. * * *

On the 16th day of June, 1870, I attended Mrs. —— in labor. She says that after previous labors, numerous clots of blood were always expelled from the uterus; after this labor, none were expelled.

On the 17th, she complained of severe pain over the region of the uterus, especially upon the right side, describing it as sharp and lancinating. She had, on this day, a severe chill; her tongue was covered with a white fur; her bowels were constipated; her pulse 90, and bounding. She had, also, headache and aching of the limbs. These symptoms, however, yielded to a little mild treatment, and on the evening of 19th, she felt, as she expressed it, and as her symptoms indicated,—"quite well."

On the morning of the 20th, at 3 A.M., more lancinating pains began in the uterus and over the abdominal region, accompanied by all the initial symptoms of metro-peritonitis. I immediately directed that she have *one gr. of opium every hour.* The pain continued unabated until 9 o'clock P.M. At this time her appearance indicated great suffering; her nervous system was disturbed and agitated; her tongue coated with a dirty black coat; there was nausea and vomiting, with fetid and dark-colored discharges from the bowels; the slightest touch or motion produced the most intense pain; the abdomen was distended to its size immediately previous to confinement: her pulse was 110. I now gave *three grs. of opium* at one dose, and ordered *one gr. to be given every half-hour.* At 8 o'clock A M. (21st) her pulse was 94, her tongue was still black, but somewhat improved; no more vomiting nor fecal discharges since my last visit; the pain was yet severe. I now gave *four grs. of opium at one dose*, and ordered *two grs. of opium to be given every half-hour.* At 11½ o'clock A. M., her pulse was 100; the pain was

still unabated; no signs of opium poisoning. She has passed no urine since 12 o'clock last night; the mammary secretion was now gone, and pus discharged continuously from the vagina. I ordered *five grs. of opium to be given every hour.*

At 4½ o'clock P. M., (21st), nervous symptoms were better, she had less pain and rested comparatively easy; some subsultus tendinum. I now directed *three grs. of opium to be given every half-hour*, and drew her urine with the catheter. At 10 o'clock P. M. she rested well, there was now no subsultus; she had now some inclination to sleep; her pupils were natural and her pulse 100; continued the opium, three grs. every half-hour. At 11 o'clock P. M. she slept for the first time since her illness began; at this time I left her for the night, directing the nurse to discontinue the opium if she awoke without pain, and with an inclination to sleep. At 2 o'clock A. M., (22nd), she awoke, bright, intelligent, and free from pain, and, as she told the nurse, *feeling well* The nurse, however, continued the opium as before, *three grs.* every half-hour. At 5 o'clock A. M. I was called to her in great haste, and found her narcotized, breathing stertoriously with contracted pupils; these alarming symptoms, resulting from the *indications beinr more than met*, quickly disappeared with appropriate treatment. She soon became conscious, convalescence being established from that moment. There remained some tenderness on pressure over the region of the uterus, but the distention of the abdomen had entirely disappeared with all the symptoms pertaining to the digestive and nervous systems; her pulse was natural, and her restoration to perfect health was rapidly completed.

* * * * * * *

The amount of opium given is presented in the following summary:

From 3 o'clock A. M., 20th, to 9 P. M., 18 hours, 18 grs.; from 9 o'clock P. M., 20th, to 8 o'clock A. M., 21st, 11 hours, 23 grs.; from 8 o'clock A. M., 21st, to 11½ A. M , 3½ hours, 18 grs.; from 11½ o'clock A. M., 21st, to 4½ o'clock P. M , 5 hours, 25 grs.; from 4½ o'clock P. M., 21st, to 10 o'clock, P. M., 5½ hours, 33 grs.; from 10 o'clock P. M., to 11 o'clock P. M., 1 hour, 6 grs. Total—44 hours, 123 grains.

At 2 o'clock A. M., 22nd, 6 grs. The last 6 grains produced the narcotism.

No other drug than opium was administered during the entire course of the disease.

We transfer the above communication to the columns of the JOURNAL *verbatim*, with the intent to direct professional attention to a certain reckless style of journalism, too much in vogue with those having the editorial control of medical periodicals, which permits the publication of articles calculated to mislead the unwary, and possibly to occasion disastrous results. Editors of medical journals may officially disclaim all responsibility for the character of communications published in their columns, and yet can never

escape the consequences of a certain degree of reflected authority which their admission confers. [We have ourselves suffered from this *reflex* hypothesis. *A.*] Published as an illustration of the degree to which the human system can be educated into the frightful habit of opium-eating, its propriety would be questionable, in view of the rapid spread of this baneful practice, but when given to the professional world as an example of the employment of the drug in legitimate therapeutics, with even the remote possibility of finding an imitator, it should not be permitted to pass by without a recorded protest.

Its prefatory paragraph permits the inference, that its author presents the above as an example of *carefully observed* experience in the treatment of disease—an example which we trust will find but few, if any, imitators. The careful observation in the case being limited to the detail of a few of the more obvious symptoms, couched in language so vague and indefinite as to have little or no value for the purpose of comparison and analysis.

In the next paragraph we are told that the writer "was led to the employment of large doses (of opium) by the plain indications to be fulfilled"; and he then presents an array of symptoms, such as, "bowels constipated," "pulse 90 and bounding," etc., which, according to the teachings of modern physiology, directly contra-indicate its use.

In regard to the italicized passage in the second paragraph, which the writer thinks should become an axiom, it may be said, that axioms, being self-evident propositions, are such essentially, and cannot become such; and moreover, that this proposed axiom involves both a verbal and a therapeutic paradox, the second and third terms each containing a possible contradiction of the first.

That it is a lamentable fact, that "*indications are often more than met*," "'Tis true 'tis pity, and pity 'tis 'tis true"!

In the next paragraph are detailed "symptoms which yielded to a little mild treatment," whether embracing heroic doses of opium we are not informed, but sufficiently efficacious to remove all the symptoms in forty-eight hours; which (symptoms), after the relapse on the following day, were not even slightly ameliorated by eighteen grains of opium in as many hours. The result of this experiment, we should suppose, would have been sufficient to skake the faith of Coleridge or De Quincy; but although the

patient was evidently much worse, and her "*nervous system much disturbed and agitated*," the dose was rather more than doubled. And again, after the administration of 23 grains in 11 hours, and a considerable improvement in the patient's condition, this last dose was nearly tripled, viz., 18 grains in 3½ hours; and still again, at 11½ A. M., there being "no signs of opium poisoning,"(?) although no urine had been passed for 11½ hours! and "the mammary secretion was gone"! 25 grains were given within five hours! After which, although the "nervous symptoms were better," "with some subsultus tendinum"! the dose was again increased to 3 grains every half hour, 33 grains in 5½ hours, and the urine was drawn with a catheter, after an interval of repose, for that function, of 16 hours; still the opium is pushed with unremitting assiduity, and in the next hour 6 grains are given, making a grand total of 123 grains in 44 hours.

Now mark the change in the tolerance of the drug by the patient: at 2 A. M., 3 grains every half hour were given, until 6 grains had been taken, which "*last six grains produced the narcotism, the indications being more than met*"! It would seem so indeed, and how outrageous the conduct of a nurse, who should administer a quantity, in excess of her instructions, equal to 4.88 per cent.

Here is presented a persistent, though hardly consistent, faith in the efficacy of a drug, for throughout all the fluctuations of the case, the remedy is applied in increasing doses. Was she better? more opium! Was she unchanged? more opium!! Was she worse? still more opium!!!

The analysis of the case suggests the following subjects of inquiry:

1. The propriety of administering a cardiac stimulant and arterial sedative, when the reciprocating equilibrium between these two portions of the circulatory system was already disturbed by the increased activity of the heart.

2. The total failure of the opium to produce any of its constitutional reactions, aside from "disturbance and agitation of the nervous system," "subsultus tendinum," and arrest of the renal and "mammary secretions," which the author evidently excludes from that category.

3. The persistence in the administration of a drug which had

so entirely failed, not only to meet the indications, but even to manifest any of its usual effects.

To the first, we must offer our protest in the name of physiology, whose laws it violates.

Of the second, there are several possible explanations.

1st. That the medicine was not taken, which, of course is inadmissible, as it involves the good faith of the physician, or nurse, although the latter is not above suspicion—witness the six grains in excess of orders.

2d. That the drug was worthless, which impugning the integrity of the druggist must be rejected.

3d. That the medicine was pure, and was taken, but was passed unchanged through the intestinal canal, and deposited in the close stool, which has happened before. And—

4th (which we believe to be the true solution of the mystery), The woman was an opium-eater already!

Should this be true, a statement to that effect would have been valuable in elucidating a very "strange story."

Apropos of the third subject of inquiry, we can only suggest for its solution, faith, which, although it may remove mountains, will scarcely contract dilated arteries, arrest subsultus tendinum, or restore functional energy to the kidneys or mammæ, even with the aid of more opium!

We expect soon to hear of administering Hydrocyanic Acid in fifteen drop doses.

W. H.

Dr. Guyot gives from 30 to 60 grains of phosphate of lime in profuse perspiration, and especially in night sweats incident upon phthisis pulmonalis. He mixes the phosphate with loaf sugar, and requires the patient to take a pinch of the powder frequently through the day.—*Revue Therapeutique.*

Editor's Book Table.

[Note. — All works reviewed in the columns of the Chicago Medical Journal may be found in the extensive stock of W. B. Keen & Cooke, whose catalogue of Medical Books will be sent to any address upon request.]

Lectures upon Diseases of the Rectum. Delivered at the Bellevue Hospital Medical College, Session 1869–70, by W. H. Van Buren, A.M., M.D., etc., etc. New York: D. Appleton & Co. 1870. Pp. 164.

This little volume is composed of eight lectures, which the author tells us "have been written out for publication in deference to the wishes of a number of, perhaps, too partial friends."

Dr. Van Buren's large experience in this class of diseases enables him to speak authoritatively; and we have perused the present work with interest. But we confess to surprise that Prof. Van Buren should have suffered himself to fall into an anatomical error by following too closely upon traditional pathology. The poor old liver has ever been a sort of scape-goat, general to all classes of physicians; and surgeons have always attributed to obstructed portal circulation too large an influence in the production of piles. Following in this lead, our author not only recognizes this obstruction as a cause of hæmorrhoids, but attempts to account for it by a piece of erroneous anatomy. He says:

"There is a net-work of good-sized veins surrounding the lower end of the rectum for an inch or two, in the rather abundant connective tissue between its mucous membrane and the layer of circular muscular fibres surrounding it, which is known as the 'hæmorrhoidal plexus.' *These empty into the inferior mesenteric vein*," etc.

We have italicised the last sentence because it contains the error to which we have alluded. The hæmorrhoidal veins are three in number, and one of them only—the superior—flows into the mesenteric. The other two—the middle and inferior—empty into the internal iliac. Consequently, obstructed portal circulation cannot exert so potent an influence in producing piles as it would were Prof. Van Buren's account of the anatomy of the veins correct. With two-thirds of the flow through an unobstructed outlet,

and that two-thirds proceeding directly from that portion of the hæmorrhoidal plexus which is the seat of piles, both external and internal, obstruction of the other third cannot exert so great an influence as Prof. Van Buren, in common with most authors and teachers, attributes to it. It is only another instance of the influence of tradition upon our teaching and practice.

With this single exception, we can speak of the book in terms of unqualified praise; and as this exception does not necessarily involve a great variation in practice, it is of consequence only as an actual error which should be avoided. We recommend the book to general practitioners, for we are confident they will find hints which they may follow to advantage, and which will enable them to manage diseases of the rectum with more satisfaction than sometimes attends their practice.

BOOKS RECEIVED.

General Surgical Pathology and Therapeutics, in Fifty Lectures. A Text Book for Students and Physicians. By Dr. Theodor Billroth, Professor of Surgery in Vienna. Translated from the Fourth German Edition, with the special permission of the author, by Charles E. Hackley, A.M., M.D., Surgeon to the New York Eye and Ear Infirmary, etc. New York: D. Appleton & Co., 90, 92 and 94 Grand street. 1871. Pp. 676.

On Diseases of the Spine and Nerves. By Charles Bland Radcliffe, M.D., F. R. C. P., Lond., etc.; John Netten Radcliffe, Medical Sup't Hospital, etc.; J. Warburton Begbie, M.D., F. R. C. P., Edin., etc.; Francis Edmund Ainstie, M.D., F. R. C. P., etc., etc.; and John Russell Reynolds, M.D., F. R. S., etc., etc. Philadelphia: Henry C. Lea. 1871. Pp. 196.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D., Lond., M. R. C. P., etc., etc. Second American, from the Second Revised and Enlarged English Edition. Philadelphia: Henry C. Lea. 1871. Pp. 266.

Body and Mind: An Inquiry into their Connection and Mutual Influence, Specially in Reference to Mental Disorders; being the Gulstonian Lectures for 1870, delivered before the Royal College of Physicians; with an Appendix. By Henry Maudsley, M.D., Lond., etc., etc. New York: D. Appleton & Co. 1871. Pp. 155.

Bartholow on Spermatorrhœa. New Edition.

Satan in Society. By a Physician.

"Here are a few of the unpleasant'st words
That ever blotted paper." *Shakspeare.*

Cincinnati and New York: C. F. Vent. Chicago: J. S. Goodman & Co. 1871. Pp. 412.

[This book is noticed by a well known correspondent of the JOURNAL, in terms which, in the main, so fully accord with our own views, that we publish his article (p. 108) in preference to one we had partially prepared. The book may gain something of notoriety by the space allotted to it, but the class it represents is getting so unblushing in its effrontery, that we had rather let our correspondent rebuke it in the mild terms he has chosen, than to employ the harsher adjectives we had ourselves selected. It is the culminating atrocity of the press.]

Circular No. 3. Approved Plans and Specifications for Post Hospitals.

Circular No. 4. Report on Barracks and Hospitals, with Descriptions of Military Posts. War Department, U. S. A., Surgeon General's Office, Washington, Nov. 23d and Dec. 5, 1870.

Circular No. 4 is a quarto volume of 494 pages, giving a full account, with detailed descriptions, plats, diagrams, etc., of all the Government Barracks and Hospitals.

Circular No. 3 is in the same form, but gives only about two pages of description and five lithographic plans of hospitals, ventilating arrangements, etc. The two constitute a portly volume, from which we shall hereafter draw largely in our efforts to secure "modern improvements" in the hospitals hereafter to be constructed, wherever the JOURNAL finds readers. It may astonish some of our readers to find out that there has recently been constructed in this city one of the old-time castellated palaces of *ochlesis*, putrescence and death, and this under the very droppings of the Medical Reform School. Yet others of the same antediluvian type are in contemplation.

We were about to say that it would be better for the unfortunate sick to be exposed as in olden time upon the waysides, or given a *clean* air out upon the open prairie.

Thanks to Surgeon General Barnes and his corps of earnest assistants, the Government for once is far in advance of the people, and even of a large number of the fossils of the profession.

PAMPHLETS RECEIVED.

Histological Contribution. By H. G. PIFFORD, M.D., Surgeon to New York Dispensary for Diseases of the Skin.

Blood-letting as a Therapeutic Resource in Obstetric Medicine. By FORDYCE BARKER, M.D., etc., etc.

The New York Observer Year Book and Almanac for 1871. Sidney E. Morse, Jr. & Co., 37 Park Row, New York City.

A bulky octavo of 200 pages, price $1, but given gratuitously to all advance paying subscribers of that time-honored and excellent religious paper, the *New York Observer*. It contains a vast amount of statistical and current information, and reprints entire the first Directory of New York, published in 1786.

Scribner's Monthly. An Illustrated Magazine for the People. Conducted by J. G. Holland (Jan., 1871): published by Scribner & Co., New York. $3.00 a year.

The Young Pilot. An Original Monthly Magazine for young people in their teens. Jan., 1871. $1.00 per annum. Chicago: The Young Pilot Publishing Co.

The Relations of the Medical Profession to Modern Education. By EDWARD S. DUNSTER, M.D. New York: D. Appleton & Company.

Transactions of the Twentieth Anniversary of the Illinois State Medical Society, held in Dixon, May 17, 18, 1870. Robert Fergus' Sons, Printers. Pp. 141.

Syphilis of the Nervous System. A Clinical Study, chiefly in regard to Diagnosis and Treatment. Founded on the cases of Prof. Wm. H. Van Buren, M.D., and those of the author. By E. L. KEYES, M.D., etc. New York: D. Appleton & Co. Pp. 44.

Retention of Urine Depending on Stricture. By ALEXANDER W. STEIN, M.D., etc., etc. Pp. 16.

Sixth Annual Report of the Illinois Institution for the Education of Feeble Minded Children, located at Jacksonville, to the Governor of Illinois. Dec. 1870. "Comfort the feeble-minded." Pp. 52.

Quarterly Summary of the Transactions of the College of Physicians and Surgeons of Philadelphia, from Oct. 6th, 1869, to May 18th, 1870, inclusive.

Proceedings of the Convention for the Reorganization of the Medical Society of the State of California, and of the first Annual Meeting, etc., etc. Incorporated Nov. 1, 1870. Pp. 41.

Annual Report of the Board of Trustees of the Hospital for the Insane of the State of Wisconsin. Sept. 30, 1870. Pp. 100. From the Superintendent.

Editorial.

Illustrations of Quackery.

To the Editors of the Chicago Medical Journal:

Gentlemen—I enclose an advertisement of the "Chicago Medical and Surgical Institute" from the *Western Home*, a periodical published in your city, in which R. A. Gunn, M.D., "assisted by the best surgeons in Chicago," solicits "consultations by letter, with enclosures of $2, and professes his readiness to perform "all kinds of surgical operations" "*very moderate* in all cases." The said periodical also contains a "Medical Department" conducted by the same "R. A. Gunn, M.D., Professor of Surgery, Bennett Medical College," in which, at the end of two columns of ignorant charlatanry, he warns the public against a traveling competitor, and assures his readers that Bennett Medical College "discountenances all forms of quackery."

Pray, who is this Gunn that makes so loud a report with such small charges? Is he a "great Gunn" or only an "Ancient Pistol"? If the latter, cannot he be made to go off without puffs?

Respectfully yours,

A Minor Canon.

New York, Jan. 1, 1871.

In reply to the above, it is only necessary to state that the "Chicago Medical and Surgical Institute" is an offshoot of the *Bennett* (!!) *Medical College*, an "Eclectic" concern which vegetates in a cockloft over some warehouse or commission store in this city.

The caution which the advertiser puts forth against some fancied competitor is simply stupendous in its impudence. It is the old *stop-thief* cry over again.

It is only necessary to advise *distant* readers that Prof. Moses Gunn of Rush Medical College, for many years previously Prof. of Surgery in the University of Michigan, and well known

throughout the United States, is in nowise responsible for the pranks of the person who wears, temporarily at least, his surname. This is an old dodge that our New York correspondent has certainly had occasion to see something of at home.

While we are on this subject we may as well say to many correspondents who have sent us copies of handbills, newspaper advertisements, etc., of all sorts, issued by persons claiming to be graduates of respectable medical colleges, and to have some wonderful methods of cure, etc., etc., *ad nauseam*, that, whatever the previous *status*, these parties in so doing directly cut themselves off from the legitimate profession, and must accept the situation assigned them by gentlemanly instinct as well as the spirit and letter of the code. From Du Quoin, Ill., comes, for instance, the announcement of an "Infirmary," duly illustrated with startling wood-cuts, and yet, if we are not mistaken, one or both the "Superintendents" are graduates of the Apostolic Reform School of this city. These gentlemen say they have treated in their rookery "THIRTY THOUSAND PATIENTS, including many strange and terrible cases." And to their statements plentiful certificates are not wanting.

Under these circumstances all medical men who wish to sustain a reputable character should forego mere clamor, or lachrymose appeals to the legislature for "protection," but each for himself secure that solid basis of sound learning, large and cultivated experience, and clear mental apprehension, which will commend him, and the profession he represents, to the confidence of all educated and thinking minds.

The U. S. Marine Hospital.

E. C. Rogers, M.D., has resigned the surgeoncy of the Marine Hospital, to take effect on the 1st inst. It is but simple justice to him to state that for the several years he has been in charge, the duties have been discharged with a fidelity and ability which have received the highest commendation from the official inspectors, and the general applause of all visitors. Everything about the institution has moved like clockwork, patients have received the most excellent care and treatment, and yet with that economy of expenditure which the Government needs everywhere exhibited, but, unfortunately, rarely finds illustrated.

His successor, N. T. QUALES, M.D., is a graduate of Rush Medical College, and a gentleman of excellent qualifications, both professional and personal. He has had considerable experience in the charge of hospitals in this city, and we have no doubt will fill the position with credit to himself and satisfactorily to the Government.

Responsibility.

It seems necessary to repeat frequently that all communications to this JOURNAL, and all selections inserted, must rest entirely on their merits for reception by readers. Some we may personally agree with, and others not at all. How can progress take place unless the varied observations and conclusions of intelligent men be advanced and compared? We believe in the largest liberty of disagreement consistent with a sincere search for the truth. Yet, while going thus far, and even admitting that in the wildest forms of human opinion there are always elements of truth present which may render them deserving the notice of the true medical philosopher, we must be permitted to state, here, that upon several important theoretical and practical points we differ *toto cælo* from several valued correspondents. An early opportunity will be taken to outline our own views upon these important matters.

For all articles whose authorship is not indicated by source, name, *nom de plume*, or initials, the Senior Editor is solely responsible.

These explanations have been given, again and again, nevertheless almost daily we receive letters asking us whether we endorse certain particular communications. We endorse nothing but good faith.

The American Practitioner.

The editors of this excellent new monthly have laid us under especial obligation by presentation of two elegantly bound volumes, comprising the numbers for 1870. The paper, typography and binding are superb, and we are happy to add, the matter contained is fully worthy its beautiful dress. Some of the best articles of the last year originally appeared in the *Practitioner*. It aims to be especially a journal of therapeutics, on the plan of its English namesake. Published at Louisville, Ky., by John P. Morton & Co. Edited by Professors Yandell & Parvin. $3 a year.

Protection.

Another of the biennial attempts to secure legislation for the protection of the profession against quackery, etc., etc., is now in progress at the State capitol. Will not our uneasy brethren overhaul their primary reading, and study the fable of the frogs who prayed for a king?

The only protection the profession want from the legislature is, that they promptly pass the bill now before them, a copy of which is printed on another page of this No. of the JOURNAL.

American Journal of Obstetrics—Diseases of Women and Children.

By the courtesy of B. F. Dawson, M.D., Managing Editor and Proprietor, we receive the first two vols., handsomely bound, of this important scientific and practical record of gynæcology. It is published quarterly by W. A. Townshend & Adams, New York, and edited by Drs. Noeggerath, Dawson and Jacobi. $4.00 a year. Single numbers, $1.25.

This is the most valuable and ably conducted journal devoted to this department that it has been our fortune to meet. It richly deserves the full and generous support of the profession.

Original Communications

Have so taken up our pages the present No. that we are obliged to put over a large quantity of material already prepared. Will our correspondents please to recollect that, to insure prompt appearance of their favors, they should reach us on or before the tenth of the month preceding date of publication?

A BILL To Promote the Science of Medicine and Surgery in the State of Illinois.

SECTION 1. It shall be lawful in cities and counties whose population exceeds twenty thousand inhabitants, for superintendents of penitentiaries, wardens of poor-houses, coroners, and city undertakers, to deliver to the professors and teachers in medical colleges and schools in this State, and for professors and teachers to receive, the remains or body of any deceased person, for purposes of medical and surgical study; *provided*, that said remains shall not have been regularly interred, and shall not have been desired for interment by any relative or friend of said deceased, within twenty-four hours after death; *provided, also*, that the remains of no person who may be known to have relatives or friends shall be so delivered or received without the consent of said relatives or friends; *and provided*, that the remains of no one detained for debt, or as a witness, or on suspicion of crime, or of any traveler, or of any person who shall have expressed a desire in his or her last sickness that his or her body may be interred, shall be delivered or received as aforesaid, but shall be buried in the usual manner; *and provided, also*, that, in case the remains of any person so delivered or received shall be subsequently claimed by any surviving relative or friend, they shall be given up to said relative or friend for interment.

SEC. 2. And it shall be the duty of the said professors and teachers decently to bury, in some public cemetery, the remains of all bodies after they shall have answered the purposes of study aforesaid; and for any neglect or violation of the provisions of this act, the party so neglecting shall forfeit and pay a penalty of not less than twenty-five nor more than fifty dollars, to be sued for by the health officers of said cities, or other places, for the benefit of their department.

SEC. 3. The remains or bodies of said persons as may be so received by the professors and teachers, as aforesaid, shall be used for the purposes of medical and surgical study alone, and in this State only; and whoever shall use such remains for any other purpose, or shall remove such remains beyond the limits of this State, or in any manner traffic in the same, shall be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding one year in a county jail.

SEC. 4. Every person who shall deliver up the remains of any deceased person in violation of, or contrary to, any or all of the provisions contained in the first section of this act, and every person who shall receive said remains, knowing the same to have been delivered contrary to any of the provisions of said section, shall each and every of them be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding two years in a county jail.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—MARCH, 1871.—No. 3.

Original Communications.

ARTICLE I.—*Some Remarks upon Cases of Obstruction of the Bowels, in which Surgical means were used.* By A. REEVES JACKSON, M.D., Chicago, Ill.

CASE 1. *Strangulation of ileum by a band of adhesion—Puncture of Intestine—Gastrotomy—Recovery.*

The patient was a woman aged twenty-eight years. She had been married four years, but had never borne children. Menstruation commenced at thirteen, and had always been painfully performed. During the preceding fifteen months she had suffered from occasional attacks of apparently causeless constipation, accompanied by colicky pains, and followed by diarrhœa. Sometimes during these painful seizures she had experienced a degree of relief by getting upon her elbows and knees. At first these attacks were separated by an interval of six to eight weeks, but latterly, that is to say, within the past four or five months, they had become more frequent, the interval between some of them not exceeding two weeks. Besides, during the past ten months she had been suffering from a cough, which had become more and more troublesome, and in that period had had two slight attacks

of hæmoptysis. Still she had kept up, and was able to do ordinary household work.

The present illness had commenced on the morning of Oct. 2d, 1859, with sharp pain in the left iliac region, which was attributed to the ingestion of some improper article of diet. The pain was more constant than it had been on any previous occasion, and was increased by pressure. Without advice, she had taken a full dose of some purgative pills, and finding them ineffectual, at the end of five hours the dose was repeated. As these also failed to produce the desired effect, an ounce of castor oil was taken, and immediately vomited. From this time forward almost everything was returned that was taken into the stomach. The pain increased in severity, and was no longer confined to the spot in which it originated, but extended upward, and into the right side. The abdomen became swollen and its walls tense. A physician being called at this stage of the case, prescribed a turpentine enema, which brought away a small quantity of dark brown fæces, without relief to the symptoms. A second enema of warm water was then administered, but it came away in a few minutes unchanged. There being no facilities for giving a warm bath, the patient was then wrapped in blankets wrung out of warm water, and a teaspoonful of laudanum administered. This was retained nearly half an hour, and was then vomited, together with a draught of water, which she had imprudently taken. The dose of laudanum was repeated, and this time retained. The patient now became easier, and was drowsy. A purgative enema, consisting of an infusion of senna with sulphate of magnesia, was then given, and firm pressure made against the anus to prevent its return. Its pressure produced so much pain, however, that it was permitted to escape. All active treatment was now suspended. The patient was kept under the influence of opium, while small quantities of beef tea and brandy were given from time to time.

I saw her Oct. 4th, the third day of her illness. At this time she was in a state of semi-consciousness, and almost unable to speak. Her extremities were cold; pulse small, feeble, and rapid. Nausea and ineffectual retching were constant. The stomach had not retained anything during the past twelve hours. Her face, bathed in cold sweat, was pale and haggard, and its expression denoted that life was fast ebbing. The abdomen was enormously

distended, and the writhing of the enlarged coils of intestine could be distinctly seen through the walls which enclosed them. The rectum was empty and contracted. I was informed that the urine had been scanty, high-colored, and voided without difficulty.

With scarcely a hope of doing more than giving temporary relief, I introduced a small exploring trocar and canula through the walls of the abdomen, at a prominent point, into the distended bowel. This gave immediate exit to a large quantity of flatus, and the abdominal fulness rapidly subsided. Flannels, saturated with a hot infusion of hops, were applied so as to envelope the entire abdomen; sinapisms to the calves of the legs and epigastrium; and a teaspoonful of brandy, with a fourth of a grain of morph. sulph. was administered. The patient had become somewhat aroused, and expressed a sense of relief. A stomach tube was now passed into the colon and a large quantity of beef tea very gradually injected, but, despite every effort to prevent its return, it was expelled almost immediately. At the same time the patient vomited the brandy, and this was followed by eructations having a decidedly stercoraceous odor, although there was no fæcal matter thrown up. The tympanites returned also, and in an hour the abdomen appeared as large and resonant as it had been prior to the puncture.

I now proposed opening the abdomen, in the forlorn hope that something might yet be done to overcome the obstruction which evidently existed, and the operation was decided upon.

Commencing a little below the umbilicus, an incision was made in the linea alba, and continued directly downwards three inches. On opening the abdominal cavity the omentum was brought into view, its lower edge being forced through the incision by the pressure of the distended bowel. The cut was now lengthened about an inch, when a large coil of intestine, very greatly congested, protruded through the wound. Taking hold of this, I commenced the work of tracing up the point of obstruction. This was soon accomplished. Making gentle traction upon the bowel, I found that it could not be drawn from behind the omentum, and upon raising the latter upward and passing a finger beneath it, the cause was apparent. It consisted of a band of lymph, about two inches in length and nearly half an inch in width, extending from the posterior free surface of the omentum to the lower side of the

transverse colon, forming a triangular space between these parts. A fold or loop of the ileum had insinuated itself through the opening thus formed, and becoming enlarged and congested, was unable to return. The band, which was tolerably firm in texture, was ruptured by the fingers, and the strangulated bowel freed. The portion which had thus been strictured was of a dark purplish color, while marks of incipient inflammation of the peritoneal investment of the small intestine above this point were everywhere present. I had the satisfaction of observing a very great change take place in the appearance of the liberated bowel before closing the wound. It became immediately filled with flatus, now able to pass onward, and its color changed from purple to dark red. I searched for and found the spot which had been punctured by the trocar. It was about fifteen inches above the point of strangulation. It formed the centre of a deep red space nearly an inch in diameter. The opening was no longer perceptible, and I was unable to discover the escape through it of either gas or fluid. I removed the whole of the adventitious band which caused the obstruction, and then, after carefully replacing the parts, closed the wound with four points of twisted suture. A flannel compress dipped in warm water was applied over the wound, and confined by means of a flannel binder, loosely pinned. During the time this was being done, large quantities of gas escaped per anum, and they were soon followed by a copious discharge of fluid fœces. Strict rest was enjoined, and a full dose of opium given.

The wound healed well, but the operation was followed by an attack of peritonitis, which was treated by opium, quinine, and a concentrated nourishing diet, and from which she slowly recovered. Nearly five weeks elapsed before she could be considered fairly convalescent.

This patient died of phthisis pulmonalis, in September, 1860, eleven months after the operation.

CASE 2. *Cancerous Disease of Sigmoid flexure—Artificial Anus—Death four months after.*

Thomas L., a farmer, aged forty-seven years, while ploughing, felt a pain in the left iliac region. At first it seemed slight, but soon became so severe as to oblige him to cease work. On reaching home, he passed a solid motion, with partial relief. The pain

soon returned as violently as before, and he took a dose of laxative medicine, which aggravated the pain, but produced no other result. His general health had been good, and his bowels regular until within the past two months, during which time there had been a tendency to constipation. During this period, also, he had experienced an occasional vague sense of uneasiness in the lower part of the abdomen, and sometimes this had amounted to actual pain, but it had never before become so severe, and had always been relieved by an action of the bowels. Towards evening he vomited. For eight days he grew gradually worse. In this time he had taken several doses of purgative medicine, and had a number of laxative enemata. The bowels had not acted at all. The urine had been abundant and was quite natural in appearance. The pain had extended over the whole abdomen, which had become very much distended. Vomiting had been frequent, but among the watery and bilious substances ejected, there had been nothing noticeably stercoraceous.

He came under my notice May 11, 1861—the ninth day of his illness. At this time he was very restless, and continually changing his position. He seemed to be suffering a great deal of pain, the pain and tenderness extending generally over the abdomen, which was greatly distended, especially at the umbilicus. Pulse 108. small and compressible; respiration quickened; countenance anxious; tongue thickly covered with a dark yellow coating.

A flexible tube was passed as far as possible into the bowel—about twelve inches—and a quantity of warm water thrown slowly in. It was retained about half an hour and then came away unchanged. Flannels wrung out of hot water, sprinkled with turpentine, were applied to the abdomen, and forty drops of laudanum administered, the latter to be repeated every three hours. Finding that the stomach would not retain this, suppositories, containing each two grains of opium, were substituted.

12th. 10 A. M. Symptoms much the same. There has been no action of the bowels. Pain rather less—a fact due probably to the effect of the opium. Pulse 120; distension of the abdomen about the same. Has had eructations with a fœcal odor, but no vomiting since last evening.

In the afternoon his condition became more critical. Vomiting had returned, and was now unmistakeably stercoraceous. The

pain was diminished, but his countenance assumed a peculiar leaden hue, and he expressed much anxiety as to his state, which he had not previously done. I proposed the formation of an artificial anus, and, having fully explained to the patient the nature and effects of the operation, readily obtained his consent.

Accordingly, having brought him fully under the effect of an anæsthetic mixture, consisting of one part chloroform and two of sulphuric ether, by measure, he was placed in a suitable position and the usual operation of Amussat performed on the right side.

An incision four inches in length was made parallel with the crest of the ilium, midway between it and the lower rib, commencing at a point opposite the sacro-lumbalis muscle. This was extended downwards until the three abdominal muscles, together with the anterior portion of the latissimus dorsi and a part of the quadratus lumborum were divided. A quantity of fatty tissue found at the bottom and back part of the wound, was torn away with the fingers and the handle of the scalpel, and the colon brought into view. It was readily distinguished, both by its fixedness and its characteristic greenish color. It was very greatly distended, and bulged slightly into the wound. A curved needle, furnished with a stout double thread, was passed through it, including about one inch between the points of entrance and emergence. Some of the cellular attachments of the bowel were then carefully separated, and by the aid of the thread it was drawn into the centre of the incision. A roll of cotton wool was packed around the bottom of the wound for the purpose of preventing the occurrence of fœcal extravasation. A transverse incision half an inch long was then made in the colon, and gave exit to a large quantity of fluid fœces and flatus. The distension of the abdomen rapidly subsided, and its walls became soft and supple. There could now be felt in the left iliac fossa a distinct hardness, occupying a space half as large as the open hand. The incision in the bowel was now increased to about two inches, and complete clearance having been effected, the edges were carefully attached to those of the integument at the posterior part of the wound, by means of silver wire sutures. The remainder of the wound was closed by hare-lip pins, with a view to obtaining union by first intention. Water dressing was applied, and strict rest enjoined.

The patient recovered well from the operation, but never fully regained his health, and died four months after.

With much difficulty, permission was obtained to make a post mortem inspection. In the upper part of the hollow of the sacrum, to the left side, was found an irregular hard mass, involving the lower two-thirds of the sigmoid flexure. It had completely obliterated the calibre of the bowel, so that I was unable to pass a small probe through without breaking the tissue. Ulceration had commenced at the upper part of the growth, and a small quantity of offensive, grayish pus was present. Above the seat of disease the bowel was thickened for a distance of nearly five inches, extending into the transverse colon. A similar condition was found also in the bowel below the growth, involving a portion of the rectum. A number of tubercles, varying in size from a pin's head to a pea, were observed in the neighborhood of the growth. On cutting into the diseased mass, the section presented a striated appearance, was of a whitish-yellow color, and varied much in consistence in different portions, being hard and dense in some places and soft in others—the latter condition obtaining most largely in the immediate vicinity of the ulcerated spot. Scattered throughout all parts of the growth, were to be seen isolated masses of transparent, gelatinous colloid. The cancerous character of the disease was beyond doubt. By request of the friends, the other organs of the body were not examined.

785 Michigan Avenue.

(To be continued.)

ARTICLE II.—*Case of Preternatural Labor, Complicated with Convulsions and an Hour-Glass Contraction of the Uterus.* By D. W. FLICK, M.D., West Grove, Iowa.

At noon, Dec. 26th, 1870, I was called to see Mrs. W., aged 20; primapara. She is of florid complexion, small frame, 4 ft. 11 in. in height, rather stout built, short neck.

Upon inquiry, I learned she had vomited every day during the whole course of her pregnancy, and that she was also troubled with habitual constipation. Her feet, legs and arms were much swollen, and she had complained of headache, dizziness, and trouble in voiding her urine for two or three weeks.

She had an operation of the bowels in the morning, and had urinated once or twice during the forenoon.

Upon examination per vaginam, I found the os uteri dilated about the size of a half dollar, and situated within an inch and a half or two inches of the ostium vagina, vertex presenting. She was very restless, and vomited once or twice during the afternoon. Pains were migratory, irregular and severe. To lessen their severity, I gave chloroform sparingly.

At 11 o'clock P. M. I found but slight change in the os uteri. I then ruptured a very strong membrane, which was succeeded by an unusually large flow of water. The patient grew very irritable, as the labor was slow and tedious. At 3 o'clock A. M., 27th, passed urine with much difficulty. At 5.20 A. M. she gave birth to a very feeble male child, weighing 6 lbs. 11 ozs., after which she seemed cheerful and in good spirits.

I had suspected another child in utero, and upon further examination found my suspicions confirmed. Vertex presenting. I immediately announced it to one of the ladies present, and in less time than it takes to write it, the patient was seized with convulsions. I then deemed it expedient to rupture the membrane of the second child, which I accordingly did, but pains did not return. I then dispatched a messenger for my forceps, a distance of five miles, and another as soon as possible for Dr. Sawyers, of Unionville. Gave her Brom. Pot. gr. xxv. At 7 o'clock A. M. she had another very hard convulsion, and by the time it had passed off, my forceps had arrived. I immediately chloroformed her, and delivered her of a male child, (not without some difficulty, as a large umbilical cord prevented easy adjustment of the forceps,) weighing 6 lbs. 12 ozs., and very feeble.

I immediately discovered an hour-glass contraction of the uterus, which, however, gave way with little difficulty. Placenta adhered, but easily detached. I think it would weigh 3 lbs. After delivery, the womb contracted tolerably well. There was, however, considerable flooding.

The effects of the chloroform now began to wear off. She spoke to me, and asked if she did not faint twice. I answered in the affirmative. She replied, "I faint very easily," and scarcely had she spoken ere she was seized with another convulsion, which was very severe, and lasted ten minutes. 8 o'clock A. M.

Gave Brom. Pot. gr. x. every ten minutes, and, determining to forestall the next convulsion, used chloroform very freely. But in this I was disappointed, for in a few minutes after 10 o'clock she was seized with another.

In the meantime Dr. Sawyers had arrived, and both rendered me valuable assistance and encouraged me with his timely presence.

We then added Brom. Ammon. gr. xv. to Brom. Pot. gr. xx., and gave every half hour. Kept her under the influence of chloroform, with slight letting up occasionally. Her tongue at this time was much swollen, and somewhat coated. Pulse 90, and very feeble. Temperature natural.

After giving one or two doses of the above prescription, there was so much difficulty in swallowing that we discontinued the Ammonia, and gave Brom. Pot. as before. At 12.50 P. M. she had another convulsion, while completely under the influence of chloroform. At 1.50 another. At 2 o'clock we gave Hydg. Submur. gr. xx, and Morphia gr. ss. At 2.12 she had another convulsion.

Dr. Sawyers then introduced the catheter, and drew off about xij. oz. water.

At 2.32 another convulsion; 2.55 another; 3.30 another; at 5 o'clock another, which proved to be the last.

In accordance with Dr. Sawyers' advice, (his business being such that he could remain no longer with me,) I gave at 8 o'clock P. M., gtt. v. Oleum Tiglii, in a teaspoonfull of castor oil. At this time the urine passed freely.

It was impossible to get her to swallow anything from this time up to 9 o'clock A. M. of the 28th, but she was perfectly comatose for the space of thirteen hours.

At 9 o'clock her bowels moved, urine passed freely, and consciousness partially returned. I commenced Brom. Pot. gr. xx. every hour. Bowels moved at 12 o'clock, and a large amount of very offensive fœcal matter passed. Patient better. At 2 o'clock P. M. bowels moved again, and at 3.

I had now been absent from home over forty-eight hours, and felt obliged to return, at least for a short time. Patient at this time was very restless, tossing from one side of the bed to the other. Gave gr. iv. Pulv. Opii, and Quinine gr. ij., to be given every six hours. Brom. Pot. every two hours.

Upon my return at 10 o'clock A. M., 29th, found pulse 110, feeble. Extremities cold. Gave Quinine, Opii and Camph., āā gr. ij. every four hours. Applied sinapisms and heated brick. Discontinued Brom. Pot., and gave beef tea and brandy toddy alternately.

Patient became quiet, and slept calmly and naturally. Treatment continued until the morning of the 30th. Pulse was then 90, full and regular. Temperature, 99. She was calm and rational, and could take a little nourishment. Pronounced her out of danger and left her. At last accounts, she and both infants were doing well.

ARTICLE III.—*On a few Instruments for the Practical Treatment of Uterine Disease.*—By PHILIP ADOLPHUS, M.D., Chicago.

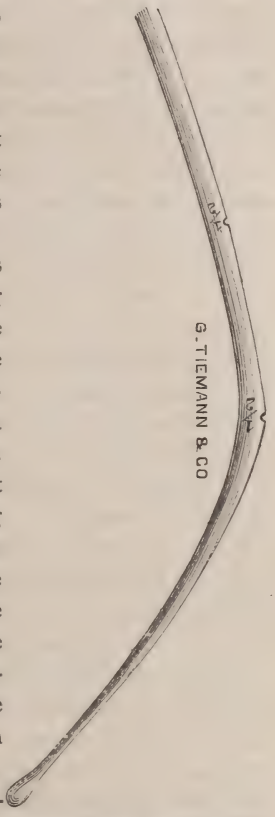
(Continued from February No.)

SIMPSON'S SOUND.
SIMS' UTERINE PROBE.
SIMS' UTERINE ELEVATOR.

When a man has become accustomed to the use of one instrument, he feels awkward when a new one is placed in his hands, even though it may be vastly superior to the old, and is therefore loth to adopt it. A valuable discovery or invention often requires a long period to secure its acceptance by even the most enterprising of our profession. It is not surprising, then, that the mass should be slow to adopt improvements. Thorough acquaintance is necessary to appreciation.

The Uterine Sound and the Uterine Probe are illustrations in point. "Reviving simultaneously an old method of diagnosis which had been described in 1828 by Lair; Simpson, Hugier and Kiwisch, in 1848, claimed its discovery" (T. G. Thomas, Diseases of Women, 1869). We are indebted to Simpson for its application to uterine pathology. His teachings regarding the mode of using the probe are to-day just as satisfactory to the mass of the profession, and are practiced and expounded by its leaders in their text books, from Bennet, 1852, to Hewit, 1869, with as much force and unction as ever; despite its modification in consistence,

shape, and manner of introduction, by Sims in 1862, and the reduction of its size by Emmet still later. Thomas alone deserves the credit of having done that justice to his contemporary that all knew was his due.



Every one is acquainted with Simpson's instrument. It is a strong metallic sound, of German silver, 10 inches in length, and of the size of a No. 3 catheter, terminated by a slight bulb on one end, and by a flat handle at the other; at 2½ inches from the extremity of the instrument, there is placed a slight knob.

The mode of introduction of Simpson's sound is as follows: The patient being placed on her back, the forefinger of the right (or left) hand is introduced into the vagina, and its extremity brought in contact with the cervix uteri, so as to act as a guide to the point of the instrument. This, previously oiled, is held in the left (right) hand, and its point slipped along the palmar surface of the finger in the vagina, and directed by it into the uterine orifice. By depressing the handle, the point will slip along the cervix. If the proper curve have been given the instrument, its passage from the cervix into the cavity of the uterus to the fundus will then be effected.

The description of its mode of introduction is plain, but its performance is accomplished with difficulty, when deviations of the normal axis of the canal are present, and these are the cases which we are called on to examine by the sound. The difficulties of introduction in versions, increase largely in flexions, or when the cavity is distorted or partly obliterated by neoplasms, the tortuosity of the canal assuming hundreds of phases, each more trying and difficult to the operator. Care and gentleness, much patience, considerable dexterity, and great experience, are necessary on the part of the physician, and even

then in many cases, irritations more or less serious, nausea, faintness, injury to mucous membrane, and violent pain, are inflicted upon the patient, so that Tilt advises an injection of 20 or 30 drops of laudanum after the introduction of the sound. Scanzoni considers it by no means a harmless instrument. Bequerel (as quoted by Thomas) dreaded seeing it popularized in general practice. Nonat says that it should be only inserted with great caution, in cases where the necessity of its use is clearly shown.

It is not alone the abnormal disposition of the uterine canal which create these difficulties; the instrument is too large, too straight, by many used in the same fixed curvature, thus producing great pain. Sims acknowledges "that he had often the greatest difficulty with the German silver sound," and states that "he had seen a score of cases in consultation where physicians assured him it was utterly impossible to pass the sound, and that he had seen such excessive pain thus inflicted, that the patient could hardly be persuaded to allow a repetition of the process."*

But thus deterred by the difficulty of its introduction, the physician who rejects its use, neglects to avail himself of a useful means of diagnosis, and deduces incorrect conclusions from insufficient data of information.

It may truly be considered an epoch in Gynecology, when Sims introduced his speculum. Then for the first time could Simpson's sound be handled with safety and ease, the surgeon's eye guiding his hand; the *sound* thus used of necessity became a *probe.* It traced out the malpositions of the womb as painlessly as the surgeon's probe traces a sinus; it did more; it made the introduction of all instruments into the uterus certain, easy, painless, and the consequent treatment satisfactory; in short, after being modified by Emmet, it became, in competent hands, a delicate, nervous, insinuating, obedient finger.

Thus the probe—small, smooth, pliable—is Simpson's sound modified by Sims. He supplanted the labors of his illustrious predecessor, and has thus been enabled to cultivate the master's labors, multiplying the good received a hundred fold, to the glory of Simpson's memory, the advantage of the profession, and the benefit of our patients.

* Clinical Notes on Uterine Surgery, by M. Sims, fol. 20, 22, 23.

Sims' Probe, modified by Emmet.

The following teachings regarding the uterine sound, which emanated from the comprehensive mind of that illustrious man 28 years ago, are as true to-day as they were then. These teachings are contained in the text books of the day, and are easily demonstrated in practice by Nott's speculum and Sims' probe. They are as follows:

The probe detects—

(*a*) The alterations in the direction of the uterine canal.

(*b*) The connection of the uterus with pelvic growths.

(*c*) The existence of diseased states of the cavity, fundus, and walls of the organ.

(*d*) The existence of growths within it, and its mobility.

In the shops of to-day can be found Simpson's sound; also a plain, large, non-graduated, smooth probe, it is Sims'; and the still smaller probe of Emmet, which is now used by Sims. It is the latter to which the writer refers whenever he speaks of Sims' probe.

This instrument is made of silver, or of annealed copper, silvered. It is eight inches in length, of the thickness of a medium sized copper wire, without marks or notches, terminating in a bulbous extremity, and is mounted in a light wooden handle three inches long.

Simpson's instrument is used as a *sound*, that of Sims' as a *probe*, to measure the depth of the uterus, and to show in what direction the fundus lies (Sims); the writer also employs it *as a guide*, in order to convey all kinds of instruments into the uterus with ease, certainty and safety. The mode of its introduction is as follows (after having examined the patient by *bi-manual palpation, which should always precede any examination of the uterus*, for the purpose, amongst other reasons, of ascertaining the direction of the womb): introduce Sims' or Nott's speculum; if the former, place her in the semi-prone position; if the latter, on her back; draw down and steady the cervix with a hook (Sims') or tiny vulsellum (Nott's) introduced into its anterior lip. (We will suppose, that owing to spasmodic contraction of the abdominal parietes, fatty deposit, painful condition of parts, or for any other

reason, we have not been able to ascertain the direction of the womb in our first examination by bi-manual palpation). Take the probe in the right hand, and slowly, gently, patiently, with a light hand, use it precisely as a surgeon would probe a sinus. Bend the probe and introduce it in the position the womb ought to occupy if healthy; if it is arrested, insinuate it in a more bent position, for perhaps the womb is anteverted; if it is again arrested, introduce it acutely bent, with the point forward and the handle turned towards the sacrum, for perhaps it is anteflexed. If success does not follow, and the womb is known to be extremely anteflexed, take a couple of Sims' sponge-holders, arm them, place them into the anterior cul de sac and under the anteflexed fundus, and patiently coax it to raise itself; it will then be possible to introduce the probe. Or again, if the womb be retroverted, the point of the probe is to be directed towards the sacrum; if it meets with an obstacle, it is to be removed and re-introduced in a different curvature. It will be found that in many cases of flexions, that the probe for half an inch or an inch is introduced in the normal manner, when suddenly the womb is found to be anteflexed, retroflexed, or assumes a right or left latero-flexion, and the probe will have to be bent in the corresponding direction.

In acute flexions of the organ it is sometimes impossible to introduce the probe until the canal has been somewhat straightened by lifting up the fundus, either from the bladder or rectum, by means of small pieces of sponge, inserted in Sims' sponge-holder, and placed in Douglas' fossa, the rectum, or in the anterior portion of the vagina. Two of these sponge-holders persuading the womb, will slowly replace the organ sufficiently to allow of minute probing and applications even if it is bound down by adhesions.

If we cannot succeed in introducing the probe *without pain*, it is best to postpone the introduction to a future period, and apply glycerine suppositories if the parts are tender or inflamed.

As a general rule, the operator will succeed with more or less ease, *provided he exercises prudence and patience, and in difficult cases does not insist upon completing the diagnosis at the first examination.*

The probe should not be introduced without a proper speculum in situ.

The bi-manual examination will always produce more pain (if

pain is felt at all) *than the probing of the womb, even in difficult cases.*

The probing of the cavity of the womb as a means of confirming the diagnosis made by the touch should be considered in every case of uterine disease, an essential constituent of the examination of the patient, not merely as a means of diagnosis, but also of treatment (vide Sims, Thomas). *The contra-indications to this imperative rule will, however, be stated anon.*

No one can diagnose diseases of the pelvis, and especially inflammations of the womb, with their accompanying complications, with justice to himself and his patients, unless he becomes an adept in the use of the uterine probe.

Knowing that the curve of the diseased womb varies exceedingly in different cases, the writer has derived great assistance in preceding the introduction of any instrument into the womb, by the probe, and has thus succeeded in rendering treatment *comparatively* painless in his hands. He, therefore, can recommend with confidence, to the profession, *the use of the probe as a guide* to every instrument to be introduced into the cervix, body or fundus of the womb. In order to elucidate the method adopted, he will illustrate it. Take, for example, a case of corporeal metritis and endometritis.

1st. Introduce probe for diagnosis; womb five inches, direction normal.

2d. Introduce probe, to be left in situ; insinuate gently into cervix Nott's cathether, for the purpose of cleaning the womb; if it can enter with ease, remove probe, pass in catheter and wash out cavity with warm salt water; if not, while withdrawing probe, introduce Nott's dilator, and if dilatable, gently dilate cervix at once, gradually and slowly, telling the patient to inform you when it hurts her *much*, during dilatation.

3d. Introduce probe, followed by Nott's catheter; womb cleaned.

4th. Introduce probe, followed by Emmet's applicator, armed with a pledget of cotton saturated with glycerine, followed by a suppository of cotton wool saturated with glycerine, placed under cervix; both to be left in situ for twenty-four hours.

Finally, Introduce a rectal pill of Morphia and Belladonna.

This treatment is repeated daily, until cavity of womb is less

tender, and cleaner. Of course in all cases proper constitutional treatment is given.

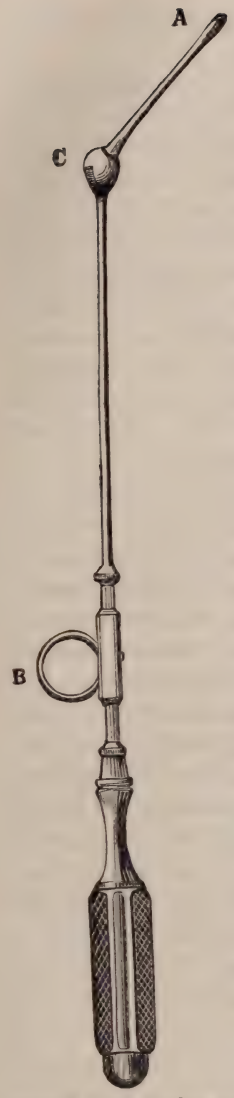
Then repeat Nos. 1 and 2; the catheter is followed by the probe, that by Pinkham's Intra-Uterine Scarificator; that by the probe, for the purpose of applying, by means of Emmet's applicator, an intra-uterine suppository of cotton charged with glycerine; another is placed in the vagina, and the patient arises from the chair, despite the constant probings, with less irritation than if it had not been used; because all the instruments have performed their office as painlessly as possible, no bungling having been tolerated; the probe previously introduced has permitted them to follow the identical channel just as painlessly, owing to previous dilation, if necessary. Many readers will doubt that this mode of using the probe can be as painless as the writer represents it, therefore he will hold himself in readiness to demonstrate this whenever called on to do so.

Let us recapitulate. The three fundamental requisites of efficient uterine diagnosis and treatment are, bi-manual palpation, a proper speculum (Sims' or Nott's, described in the February number of this journal), and the probe used as a probe and a guide.

The restoration of the retroverted uterus to its normal position by Simpson's sound, is fraught with difficulty, always with pain and hæmorrhage, sometimes with danger of perforation of the fundus. The retroversion is diagnosed by the introduction of the sound, the instrument is then turned for half a circle, the fundus is elevated towards the sacrum, during which operation the whole weight of the organ is supported on the point of the instrument.

It is much safer to reduce these flexions by means of position, the hand, armed probangs, etc. The sound should, according to Tilt, Sims, and Thomas, not be used for that purpose.

Sims' Uterine Elevator is a useful instrument, constructed on correct principles, and preferable to Simpson's sound.



* It is a sound; two inches from its uterine extremity is a hinge joint, on which is placed a disk. The instrument is 13 inches long, and consists of a handle (3 inches), a shaft (7 inches), and a uterine stem 2¼ inches, inserted into a disk which revolves at the end of the shaft. The disk is perforated by seven holes (the stem occupying the eighth). The shaft is a hollow cylinder containing a rod, which is retracted or pushed forward at will, so that its point may lodge in any one of the perforations in the disk, whereby the stem may be held firmly at any angle with the shaft.

It is used as follows: Introduce the probe for diagnosis, adjust the stem of the Elevator at the proper angle with the shaft, introduce it into the uterus, press the disk close up the os tincæ, push the mouth of the womb downwards and backwards in the direction which was, at the reception of the manœuvre, occupied by the fundus.

"This instrument is simply Simpson's sound with a joint or hinge two inches from its uterine extremity; but its *modus operandi* is very different. One elevates the uterus in a right line, the other in a circle to the right or left; one supports the weight of the organ on a ball at the os, the other principally on the point of the sound in the uterine cavity; one elevates the uterus by a power exerted on the cervix, the other by a like power on the fundus; one seldom produces any pain, the other often does." †

The contra-indications to the use of the sound and probe are, pregnancy, suspected pregnancy, *fatty degeneration of the uterus, accompanied by a state of excessive*

* Vide Op. Cit. and Am. Journal Med. Sciences, January, 1858.

† Sims' Op. Cit., fol 260.

superinvolution; and amenorhœa, until the cause of the cessation of the menses is ascertained.

In conclusion, many of the cases of perforation of the uterus reported to have happened in the practice of skillful operators by means of Simpson's sound, and for which the instrument and the mode of its introduction have been condemned, have no doubt been caused by the pathological condition of the uterus itself, which, according to Simpson, Scanzoni, Byford, Hewit, and especially Klob, after frequent pregnancies and abortions, complicated and followed by puerperal fever or subsequent inflammation, has become atrophied by fatty degeneration.

A uterus thus diseased, flaccid, softened, friable, with walls sometimes as thin as paper, is liable to be perforated by any instrument; and the utmost care will not prevent this accident. In a subsequent paper this subject will be treated in extenso.

Finally, it has been the object of the writer of this paper, to suggest the *general adoption of the modified Sims' probe* (*by Emmet*)*; its mode of introduction with the speculum in situ; the rejection for purposes of diagnosis of the stiff German silver Simpson sound, and its mode of introduction without speculum, as now taught in the text books; and the entire rejection of Simpson's sound as a redressor in cases of retroverted uterus.*

It must, however, be admitted by the writer, that many eminent men pass Simpson's sound and other instruments, with and without specula in situ, with safety to the patient and satisfaction to themselves. This only proves that these gentlemen can by dint of practical manipulation perform, with inadequate means, what the general practitioner will not attempt, and ought not to.

If the illustrious Simpson were yet with us, he would be the first to adopt the latest improvements; let not then the weight of his great reputation stand in the way of real progress.

169 Dearborn Street.

Our Officinal Cathartic Pills. By E. Ingals, M.D., of Chicago.

The cathartic pills made officinal by our pharmacopœia, appear to me to lack the properties which the necessities of the profession require in such preparations, namely, efficiency and gentleness of action, the compass small, the ingredients inexpensive.

The following are some of the points that may be urged against them. They all require so large a number to produce cathartic action, as to constitute with most patients a serious objection to their use, and the poor quality of the drugs often employed in compounding them serves but to increase the weight of this objection. In a number of them aloes is the chief ingredient, and cathartics are often required when the conditions of the large intestines and pelvic viscera contra-indicate the use of this article, at least in such doses as are usually prescribed. Rhubarb, and the compound extract of colocynth, are expensive, and therefore often adulterated, a choice article of either costing twice as much as that usually kept in the shops.

The suggestion of a cheap remedy is a matter of more than pecuniary significance, for the maxim of Pliny, "the poorer the purer," applies with equal force to other articles than stimulating beverages. Against the compound cathartic pills lies the more serious objection that each pill contains one grain of calomel. These, I fear, are often prescribed because they are officinal, and stand ready on the shelf of the pharmaceutist, when the physician would not think of writing for calomel in a prescription for his patient—but the practice, first adopted from convenience, soon becomes a habit.

Mercurials should never be prescribed unless the physician has in his mind a clear reason for supposing they will accomplish some desired purpose better than any other article; but to administer them as cathartics are most frequently used—simply to unload the bowels, to deplete the system, or obviate constipation—is altogether unwarrantable, and I doubt not this practice sometimes results in permanent injury to the constitutions of the sick.

Seeking to supply this desideratum, I have made trial of a

number of substances, united in different proportions, but the following formula has proved to me the most satisfactory:

℞. Aqueous Extract of Aloes,
Podophylin,
Gamboge, } - - - āā gr. xxx.
Oil of Caraway, - - - - - - - m. vj.
M. ft. pil. No. lx.

I have had the pills made up and sugar-coated in a very satisfactory manner by J. W. Ehrman, a pharmaceutist of this city. The pill is small, weighing only three grains after being sugar-coated. One taken at bed-time will usually cause an evacuation from the bowels in the morning, and without occasioning either pain or nausea; but should one fail, or be thought insufficient, another may then be taken. I have rarely found it necessary to administer more than two, and for some patients who are peculiarly susceptible to the action of cathartics, the half of one is sufficient. The aqueous extract of aloes seems to contain the more cathartic principles of the drug, while it is the least irritant to the bowels, and the amount administered being so small, it does not appear to act injuriously, even in cases in which the effect of the ordinary dose of aloes is unpleasant.

Could some formula similar to the one I have indicated, be placed in the next revised edition of the pharmacopœia, I believe it would in a great degree supplant the use of the compound cathartic pill, and by so doing, prove a benefit both to the public and profession.

Belladonna in Cholera Morbus.

Dr. H. E. Whitehead having had occasion to treat several cases of severe attacks of cholera morbus, and having failed to relieve the first case with opium, ordered for the patient, pills containing one-third to one-half a grain of the extract of belladonna; one to be taken every four hours. The first pill relieved the sense of constriction or knotty pain in the region of the umbilicus, and after the third pill the bowels were freely moved, although several purgative draughts had been taken previously without effect. After having taken two grains of the extract the patient rapidly recovered, with no constipation, headache, or unpleasant symptoms. The result in three other cases, with the belladonna treatment, was equally successful.—*Pacific Medical and Surgical Journal.*

Rush Medical College—Alumni Meeting and Commencement Exercises.

February 1st, 1871, was a gala day at "Old Rush." The alumni meeting was well attended, and the commencement exercises were of unusual interest.

The alumni assembled at 10 A. M., in the lower lecture room of the College, ABNER HARD, M.D., of Aurora, the President, in the chair. Over two hundred alumni reported. After the usual formal business, the association proceeded to an election of officers, with the following result:

President—DR. CHRISTOPHER GOODBRAKE, of Clinton, Ill.

Vice Presidents—DR. J. P. WALKER, of Mason City; Dr. F. A. EMMONS, of Chicago.

Secretary—DR. S. COLE, of Chicago.

Treasurer—DR. W. C. HUNT, of Chicago.

Executive Committee—DRS. D. S. ROOT, J. W. TOPE, R. L. LEONARD.

After some further general business, of which the Secretary has not given us the details, the officers elect assumed their positions.

Dr. Goodbrake said the honor was unexpected. He had never before met with the association, but was well acquainted with many of the graduates, and he had always found them perfect gentlemen. In three years' service during the war, he had met many of them, and always found them to be faithful in duty and skillful in their profession. The doctor concluded by again thanking the association for the honor which had been conferred upon him. The language of Shakespeare, "Some men are born great, some acquire greatness, and some have greatness thrust upon them," could be applied to himself, as far as its concluding words were concerned.

Dr. Abner Hard, of Aurora, the retiring President of the Alumni, then delivered the annual address.

After treating at some length upon the importance and responsibility of the profession, and its achievements in alleviating the distresses of mankind, the doctor concluded his very able address as follows:

Twenty years ago, as we listened to the lectures of Professors Brainard, Herrick, Blaney, Freer, and their colleagues, little did we imagine what was to be the burden of labors. The most to which we aspired was to become successful practitioners of medicine. The future was full of hope, and the teachings of our Alma Mater were not such as to discourage us. But how has it been? Not only have we been called upon to battle with disease in its complex and multifarious forms, which too often has baffled our skill and sunk us almost to the depths of despondency, but cares and responsibilities have surrounded us, which were unlooked for and unthought of. An army of quacks and pretenders, of all grades and names, have swarmed about us, and a credulous people, not only willing, but apparently anxious, to be humbugged, have been, in too many instances, ready to put their faith and their lives in these men's keeping, generally paying a high penalty therefor, and yet ready to try it again.

The press, both secular and religious, for the sake of the paltry price paid for their advertising, have lauded, and puffed, and recommended these knaves and their nostrums, to the not unfrequent fatal injury of the individual, and the demoralizing of the community, and by some strange, mysterious and paradoxical arrangement the whole responsibility of the misfortune is most commonly thrown back on to the shoulders of the regular profession. The public should be more thoroughly informed in regard to the true claims and the true position of regular medicine. Much of the mystery that hangs about it should be swept away, and the science of it should in a far greater degree be reduced to the comprehension of the common mind. In a word, might not much of it be let down from its cold scientific heights and be made popular? The public might be shown, for instance, that all the known remedial agents of any *positive* value, and all the surgical appliances of any real merit, have originated with, or are traceable either directly or indirectly to, the regular school of medicine; that the substantial scientific basis on which it rests its claims to public support and consideration have been developed and built up during the present and past ages, by the members of its own school. It might easily be shown that all the great branches of medical science, such as anatomy, physiology, surgery, pathology, and many others, the slow growth of more than twenty centuries, have been brought to their present state of brilliant perfection by the increasing toil and unremitting labors of the regular profession. And with equal ease it might be shown that all other schools are fragmentary and partial, and that the little that belongs peculiarly to any of them that is valuable, belongs equally to us.

Besides the means already indicated, each regular physician can so deport himself as to educate and elevate at least a portion of his neighbors by a well ordered life and a faithful and skillful

discharge of his duties. Legislation, in my opinion, can afford us no relief, and enlightened public sentiment must, and in due time will, I am confident, do the work. "Blood will tell," is an old saying, and so also, I add, will science, so will skill, and above all, so will brains; and I think I hazard nothing in saying that while the regular schools of medicine, with all their vast, brilliant, scientific, and other achievements over the various forms of disease, while through their agency and instrumentality the average of human life has been lengthened from ten to fifteen years, and while also they are by no means, at the present time, masters of the situation, death and disease to-day baffling them on every hand.

I congratulate you, gentlemen, upon being honored members of the only true and catholic school of medicine known among men. I congratulate you upon being honored members of the most useful and scientific profession among men. I salute you as the honored sons of an illustrious and cherishing mother.

I salute you, devout and humble children, in the act of paying your annual tribute of respect and devotion at the shrine of your Alma Mater. May the sphere of her usefulness never be more circumscribed than now, but in the future, as in the past, may the star of her glory shine brighter and brighter until the perfect day; and may the time never come when her sons shall cease to hail her, salute her and love her as their cherishing mother.

At the close of the address of Dr. Hard, the alumni adjourned to the lecture room above, for the purpose of witnessing some experiments in the science of vivisection, to be made under the supervision of Prof. J. W. Freer.

[A general account of these experiments which were characterized by the usual skill, accuracy and success exhibited by Prof. Freer, will be given elsewhere by Dr. Wadsworth, his accomplished assistant.]

The evening exercises were commenced with prayer by Rev. L. C. Chamberlain.

The roll of the graduating class was then called, the President delivering them their diplomas. Their names are as follows:

E. V. Anderson, Illinois; W. W. Baxter, Illinois; W. E. Blackman, Iowa; H. S. Bachman, Michigan; T. H. Bragg, Iowa; A. L. Buchan, Wis.; G. W. Brandon, Illinois; J. M. Bartholow, Illinois; E. W. Clark, Iowa; E. J. Chapman, Indiana; F. C. Conan, Wisconsin; N. S. Craig, Iowa; C. W. Cornell, Iowa; D. B. Collins, Wisconsin; B. D. Copp, Wisconsin; J. Y. Galer, Iowa; R. C. Grigg Illinois; S. A. Greenwell, Nebraska; G. G. Goll, Illinois: W. R. Geiger, Iowa; Thomas Gilluly, Wisconsin; S. T.

Hurst, Illinois: Wm. L. Harcourt, Illinois; J. N. Hannaford, Indiana; John L. Hays, Illinois; B. R. Hall, Wisconsin; J. L. Hagerty, Indiana; C A Hudson, Tennessee; J. H. Hutchins, Wisconsin; J. V. Harris, Illinois; W. T. Montgomery, Illinois; E. N. McGary, Minnesota; J. N. Miller, Missouri; D. C. Nicosin, Illinois; George E. Newell, Wisconsin; A. T. Peck, Wisconsin; John F. Pritchard, Wisconsin; L. L. Ratliff, Iowa; C. D. Roome, Canada; A. J. Roe, Illinois; J. W. Sparks, Illinois; A. G. Schloesser, Illinois; T. Stebbing, Wisconsin; J. O. Stanton, Illinois; E. LeRoy Turner, Iowa; H. J. Crumpton, California; J. W. Dawson, Iowa; R. R. De Witt, Illinois; A. C. Donovan, Missouri; A. A. Dye, Missouri; D. T. Douglass, Illinois; R. E. Egbert. Indiana; Wm. Eastman, Wisconsin; Wm. L. Everett, Illinois; George W. Frost, Iowa; John M. Furnas, Iowa; M. H. French, Iowa; T. D. Ford, Illinois; M. H. Garten, Illinois; C. H. Guibor, Colorado; H. A. Given, Illinois; E. T. Ingals, Illinois; Henry Jones, Illinois; J. E. Jones, Iowa; C. D. Knapp, Illinois; Thomas Kelley, Illinois; J. C. Lincoln, Iowa; T. P. Lark, Illinois; P. H. Leavitt Indiana; Robert La Grange, Iowa; Wm. T. Leonard, Wisconsin; R. J. Mitchell, Illinois; P. H. McElroy, Illinois; J. A. Masterston, Illinois; Robert McPherson, Illinois; George M. Macklin, Illinois; E. G. Minnick, Iowa; L. W. Thomas, Illinois; I. H. Taylor, Illinois; W. W. Williams, New York; C. A. White, Indiana; F. B. Wood, Michigan; E. B. Young, Iowa.

Ad Eundem—W. S. Baker, M.D., Illinois; Amos Knight, M.D., Michigan; M. H. L. Schooley, M.D., Missouri; D. L. Jewett, Illinois.

Honorary—Thomas M. Hess, Illinois; Zaccheus Bass, Vermont.

President J. V. Z. Blaney then delivered the charge to the graduating class:

Gentlemen of the Graduating Class of 1870–71:

You have this evening received the highest honors which this institution has the power to confer. Upon you has been conferred the Degree of "Doctor of Medicine" by the authority of the State of Illinois, and the Board of Trustees of Rush Medical College on recommendation of its Faculty, before whom you have passed a searching examination.

The conferring of this degree, and your acceptance of the diploma which certifies to these facts, invests you with several important privileges which I desire that you should fully appreciate, and at the same time with certain responsibilities which the Faculty of the College would wish fully to impress upon you before you bid your farewell to your Alma Mater.

These privileges are: 1st, that you are each of you endowed by all the influence, and with all the prestige which the College now holds in community, as proper persons to practice legitimate medicine; 2nd, that you are each of you admitted into the ranks

of the Alumni of the Rush Medical College as members *de facto* and *de jure*—an association of which I feel warranted in asserting that, for the number of honorable and of accomplished medical practitioners which its rolls enumerate, cannot be excelled, if equaled by the Alumni Association of any institution of equal age in our country.

The responsibilities, voluntarily assumed by you, by your acceptance of these honors, and of your diploma, are numerous and obligatory. They are comprised in your obligations: 1st. To community, especially to that in which you may fix your residence; in this, that you will, at all times, be in readiness to respond to its urgent calls for your services, and be, as far as your circumstances and abilities permit, prepared in every way to respond to its needs. 2nd. To your profession, that you will use your best endeavors not only to keep pace with its advancement in all its departments, but also to make your own additions to its progress, and above all, that neither by word or deed you will swerve from the paths of legitimate medical science, or permit yourselves to be attracted by the allurements of the pocket, or of temporary success into the paths of empiricism, however bold their pretensions, or however promising their offers of preferment.

The response on the part of the class was made by Dr. C. A. White, as follows:

Mr. President and Gentlemen of the Faculty:

In behalf of the members of the twenty-eighth graduating class of this institution, I am before you to respond to the words which have just been spoken. To us the occasion is one of marked interest and great pleasure; nevertheless, when we come to look forward into the dim shadows of the future, and realize that we never shall again be permitted to assemble together, I imagine certain feelings of mingled pleasure and regret becoming developed within each of us at the idea of being now forever separated.

Here we have met in the capacity of teacher on the one hand, and of pupil on the other. We, of the latter, to accumulate and store up that knowledge which is to be our pleasure, our reliance, and our guide, while attempting to contribute to the welfare of humanity by the ministrations of the bounties of our chosen profession. From day to day, for the past eighteen weeks, we have been accustomed to assemble and re-assemble around the altar of science, within the majestic walls of this Æsculapian temple, to receive, from your laden lips, words of golden truth and meaning.

Here we have become thoroughly acquainted with the anatomical construction of our own bodies, the crowning work of

the Creator's skill. We have seen the framework upon which no pains have been spared to make us perfectly familiar with its wonderful mechanism.

We have beheld, in wonder, the vital current coursing its way throughout the system, carrying with it life and health, and happiness to fair forms and hoary sages. We have been lost in rapt admiration, while gazing upon and contemplating those wondrous organs which constitute man's nervous system, the normal functional activity of which elevates him above the other works of the creation, gives to him supremacy over all the earth, and brings him into the nearest possible relation with the Creator himself.

We have passed the threshold of modern science, and have been admitted into its gorgeous labyrinth, deep down into the earth, midst its salts, its ores, and its precious metals; we have diligently searched each lofty mountain peak, and the broad and fertile vales between; we have been taken upon the eagle wings of science and wafted away through our own atmosphere to that of the sun, of the moon, and of the stars, and into ethereal space, all in one grand search for substances and forces which might be ascertained to possess specific influences over those conditions which we denominate disease.

But man, in his eagerness for knowledge, in his desire to unfold the works of the creation, has not stopped in these places content with those things only which he can realize by his natural endowments, but has developed for himself and brought to his aid numerous modes of investigation and observation, by which he is enabled, in many instances, to unlock the arcana of nature and behold her secrets and mysteries at will.

Thus, assisted by the power of the microscope, and by well-directed, unremitting labor, one of your own number, our worthy Professor Freer, has succeeded in discovering and demonstrating to the medical world an important element of the red blood corpuscle, which had escaped the acute observation of his scientific fathers and contemporaries, both in this country and in Europe. We have seen that, in keeping pace with the onward progress of the present age, the profession has been compelled to cast off much of the older paraphernalia of the healing art, and to substitute modes and measures more nearly in accordance with the teachings of modern science, rendering the profession once more nearly allied to an *actual* science, and less of an empirical art.

And thus, we recognize and welcome the great revolution which has taken place in the profession within the past quarter of a century—a revolution marked in character and of inestimable benefit; marked for the manifest changes which it has wrought by discarding entirely, or by restricting within proper limits, the use of those old-time therapeutic measures, the principal actions of which were those of extreme depletion only. Beneficial, by having

replaced them in many instances by their very opposites, by administering the so-called medicines more sparingly, more judiciously, more scientifically; by economizing the powers of life, by relying more confidingly upon the vis medicatrix naturæ, to whose bidding alone we should respond, and to whose existence alone our efforts should be addressed, never presuming for a moment that human knowledge or skill can in the least improve its perfect works.

As students of nature, then, we go forth from this temple of learning, imbued with a thorough knowledge of the power of proper exercise, of rest, of pure air, of sunlight, of dietetic measures, and with the idea that, as yet, there are but very few, if, indeed any, specific remedies among medicines.

In view of the past, is it in the least vainglorious to suppose or even to predict that similar advances and discoveries, not to say absolute changes, from that which is now considered to be the truth, may take place in our time, and that some one or more of the members of the present class may develop and harness into the work of usefulness some of the yet hidden treasures of nature, thus each becoming a benefactor to the race for generations yet unborn?

The work is a great work. Its importance cannot be overestimated; and yet it is incomplete. We receive it from your hands, not as a finished something, but as something offering many opportunities for labor and observation before all of its secret avenues shall have been sufficiently traversed and all of its secret chambers fully explored. We have seen, 'tis true, that in many respects there is that which already approaches very nearly, or indeed, quite, to perfection; but there still remains sufficient fertile ground yet untilled, in which to spend our time and study most profitably.

> "Labor with what zeal we will,
> Something yet remains undone,
> Something uncompleted, still
> Waits the rising of the sun."

It is our intention, then, to enter the field laid out before us with a just appreciation of its magnitude; with a full determination to do honor and justice to the great cause in which we have become voluntarily enlisted, thereby proving to the world that the profession still exists, that it is self-sustaining, and that it will continue to be developed and grow until all the remotest nations of the earth shall realize and appreciate its beneficent influences in the highest degree of perfection, and join in the universal proclamation that its bounties and benefactions transcend all of man's other works.

At your hands, Gentlemen of the Faculty, we have received the great principles of medicine and surgery, constituting the grand framework of the temple in which our hopes and interests are

completely enwrapped, and which it now becomes our duty to build, to ornament and adorn, each one for himself, in his own capacity, with the brilliant truths and triumphs of practical medicine and surgery. We acknowledge your competency to instruct; we acknowledge the ardor which you have each manifested in our behalf; we accept the numerous truths from your several branches, which, like so many beacon lights, are to guide and pilot us aright throughout our professional lives. We are aware of the responsibility which we owe to you, and we feel the weight of the responsibility which you have entrusted to us. For the lessons received from each of you, for your zeal as our teachers, for the energy which you have manifested in behalf of the entire class, for the confidence which you have bestowed upon us in the act of attaching your signatures to our diplomas, we tender our sincere thanks, and promise to be true to our *Alma Mater*, thus reflecting just and due credit and honor upon your worthy heads. We gladly receive and accept, and will never fail or forget to cherish, our diplomas from this institution; not merely for their own intrinsic worth or value as such, but as tokens from you and your honorable President, that, thus far, we have done well, and that henceforth we have your combined esteem and confidence, ever bidding us God-speed in the vast work spread out before us.

In receiving our diplomas we realize that we are elevated to an honorable position in the ranks of the alumni of this college, who, perhaps, constitute a majority of the working men of the profession throughout the Northwest, whose competency and skill have replaced happiness for grief in many households, and whose rectitude as men and physicians sustain, untarnished, the honor of your cherished institution. The feelings which are naturally generated between teacher and pupil are usually of such a nature as to constitute a firm bond of friendship throughout the lives of the parties. May this be the case with all of us.

And now, fellow-students, having pledged ourselves to be true to the institution which has given us professional birth and honors, let us be true to ourselves. In launching out upon life's waves to do our duty to ourselves and to our fellow-man, we are assuming the greatest of responsibilities. With clear heads and diligent feet we must pursue our course. And though it become obstructed with difficulties, we must not yield, must not turn to the one side nor to the other for an easier way, but with that courage which a consciousness of right and knowledge alone can inspire, surmount all difficulties. Let us go forth with sympathy in our hearts, with firm and unbiased minds, and with willing hands, deserving success and confidence, and we shall certainly command them.

Let us enter the arena of the profession with alone the armament

of determination—the determination to work, to amass knowledge, to do justice, to conquer, to excel—for what should be our watch-word and our cry, if, indeed, it be not Excelsior?

Lastly, let us ever cherish and respect the lessons learned in this institution as our great landmark, so that we may look back with pleasure upon our school-days here, and proudly claim Rush Medical College as our *Alma Mater*.

Prof. Moses Gunn then delivered the Valedictory Address given below:

I was, lately, greatly interested in a copy of a rare old picture called "The School of Anatomy," intended to represent the first human dissection. The mingled sentiments which must have found place in the minds of the actors, in that then strange scene, were forcibly portrayed. Deathlike and expressionless lay the form which but recently had been the temple of the living spirit, and which, by that principle or force, had been actuated to deeds of might and valor, or had been the medium through which sentiments of love, hate and revenge had been manifested. Its deathlike aspect was heightened by the speaking attitudes and countenances of the awed, but intensely interested actors in that then unparalleled drama. The deep mysteries of the wonderful mechanism are about to be revealed. Not even the sacredness of the human form, the image of the great Creator, can longer withhold the overmastering desire for knowledge which has long yearned for the revelations of the analysis about to be made, until the barriers of human prejudice have at last fallen before it. But though mind triumphs over prejudice and directs the inquisitive scalpel in its invasion, still the idea that the ground on which they are entering is holy and not to be pressed with shodden feet, lends to the countenances of the actors a seriousness which adds to, and beautifies their earnestness. Sounding yet in their ears, "the temple of God are ye," they feel that they are entering the holy of holies, and with faces veiled with gravity and hands washed in innocency, they come up to their longed for, yet dreaded work. Strangely beautiful must have been the original scene which the artist has conceived and so successfully transferred to his canvas. Strangely it contrasts with our own rich and varied experience in anatomical research. Unfavorably does it contrast with the degree of gravity and earnestness with which we, at the present day, approach the subject. How little like a modern dissecting room scene! Mature and earnest men, who had already attained to the front rank in their profession, bent intently over that wonderfully laden table. What we now regard as the starting point in medicine, was to them an advanced study. Their starting point was not found in anatomical investigations, but in a strict empiricism. In fact, empiricism underlies the whole chronology of medical

science. The effort to learn by experiment what was salutary, beneficial and curative in diseased and disordered states of the human system, was the first step in what became, in process of time, medical science. This system of empirical medicine, crude, uncertain and oftentimes erroneous as it was, and founded only in that innate disposition to preserve health, prolong life and increase the comfort of existence, led gradually and necessarily to the resultant desire to know the wherefore. The wherefore could only be found through a knowledge of the machine experimented upon, and that was enveloped in sacredness as well as shrouded in mystery. Resort, to study upon the structure and functions of that portion of the animal kingdom which most nearly resembled humanity, was naturally had; and thus the sciences of anatomy and its handmaid physiology, were commenced and attained some development, while ideas of pathology were yet as wild and visionary as the dream of delirium. But gradually and certainly grew the desire for, and love of knowledge. Like that divine sentiment which the immortal poet styles an appetite which grows by what it feeds upon, so the love of knowledge knows no satiety, but ever increasing in fervor and earnestness by additional acquisitions, like the mountain stream its course is ever onward with still increasing volume, till at last it shall be swallowed up in the vast ocean of truth. Thus the early dissections upon the lower order of animal being augmented knowledge and stimulated the desire therefor, till finally the sanctuary of the immortal soul, rendered still more mysterious and awful by the flight of that essence, was fearfully and tremblingly invaded. Solemnly, as if in the presence of the disembodied spirit, which might be viewing the desecration of its former tenement, were those dissections made. Nought, save an overpowering thirst for the especial knowledge revealed by those investigations, could have prompted and impelled them. And when that indifference which is the offspring of familiarity was attained, there still remained that prejudice to overcome which, even yet, is not fully conquered. But the science of human anatomy was established, and that of physiology commenced its vigorous growth, while close upon it followed a knowledge of pathological changes which soon began to take the form of a system. Then commenced comparative studies ranging from the lowest form of animal existence to the crowning work of earthly creations, for the purpose of developing to the highest degree a knowledge of that crowning work. Minute structure at last claimed attention, and the science of optics was invoked to lend its aid in the investigation. Histology of the present day is the result; and the anxious, earnest search after the yet unknown, through the object-glass of the one-fiftieth of an inch focus, with all the appliances and accessions of the modern microscope, only indicates our present status, not that to which we may yet possibly attain.

While this ever increasing scope and extension of study has gradually raised the standard of practical medicine and benefited mankind, it has been charged that its tendency has been towards a materialism which has often shocked spiritual sense and debased moral nature. Without here stopping to consider the truth of this statement, let us glance at some of the theories which have been advanced, and have seemed to warrant the charge, coming as they did from a scientific source, and claiming the merit of a refined philosophy. Not to go farther back than a period within my own recollection of scientific matters, the complacency of mankind in its manhood was not a little shocked by the statement that man had attained his present position at the head of animal existence, only as the last development in a progressive autogeny; that this self-development or plastic force in nature first brought forth the lowest forms of animal life; and that gradually acquiring power, and operating under ever improving circumstances and upon products which were ever advancing toward a higher degree of perfection, grade had succeeded to grade in an upward scale through the vast cycles of time, until mankind appeared upon the earth, the latest and most perfect in the series. That this last and crowning existence, in its individual embryonic life, passed rapidly through all the phases of a development representing successively all the inferior grades. That a constant improvement marked the ever succeeding generations, and that in the dim and distant future, out of the loins of the present type of humanity there might spring an order which should outrank it, as it now does the orang-outang and the gorilla.

Human pride had been well rebuked by the satires of Swift, but the satire was patent; here, however, under the garb of philosophy, was a theory which might well have been taken as a sarcasm more subtle and cutting than the trenchant wit of the eccentric Dean. But such was not its aim. It was put forth as a pure philosophy, and while its author protested against the charge of infidelity, and still spoke of the Creator and creative wisdom, he so shrouded the first great and Adorable Cause in such a mysticism as to be unrecognizable by the student of revelation, even though that revelation had been studied as an allegory with the light of science illuminating its pages.

Perhaps it may be considered by some a work of supererogation to reply to such vaporings, while others may consider a successful reply not within the range of human effort; nevertheless, it may not be amiss to look about us for some firm rock on which to place ourselves; some anchorage sure and reliable where our barque may ride in safety while the storms of a mad philosophy sweep ragingly past us.

Is the scale of animal being graduated with such regularity as to place man at the head, separated from the grade next below

only by a single step or grade? Or, is there between man and the whole of the brute creation a chasm so deep and wide as to justify a faith in the statement that he was created but little lower than the angels? I propose to consider these two questions from stand-points which are more or less intimately related to your professional studies.

1st. From an anatomical stand-point. Is the step or grade from the highest type of the brute creation to the lowest type of the human family only equal to that which marks the difference between the highest, and the grade next below it of the brute creation? or, does the *tout ensemble*, as well as several specific anatomical points, mark a separation so wide as to break the series?

It seems as though there could be but one answer to the idea expressed in these two forms of the same question. There is no fear that the author of "The Vestiges of Creation" himself, would even for a single moment mistake, at the most casual glance, an average specimen of the lowest human type for the most perfect specimen of orang-outang or gorilla. That indescribable impression made by individual presence is so widely different in the two examples, that a willing proselyte to the so-called philosophic creed would stand back amazed at the difference which separates them. In the one he sees, emphasized in every attitude, glance, gesture and expression, only the brute; in the other, he cannot shut his eyes upon that spark of humanity which gives the hope of something beyond and better than the present, which lifts him to the pedestal on which stand, also, hope and aspiration.

But to pass from the whole to constituents; look at the form of the head, and its development, as compared with the face in the two specimens, and here, too, we see a longer step than any taken in the brute series. The length of the superior extremity; the four hands; and the facility, if not necessity, of quadrupedal locomotion in the brute, leaves a space between it and humanity too great to be spanned save by poetic fancy.

2d. From a psychological stand-point. Without denying to the brute creation a mental capacity superior to mere instinct, and even admitting that in some instances the brute may give evidence of a reasoning power that closely approaches true induction, still, in the results attained, he falls so far below the standard of the lowest humanity as to leave even a greater space between them, than that which separated them in anatomical development. The dominion over the "beasts of the field," which was given to man, according to revealed history, is enjoyed by the lowest example of the human race. His mental endowments enable him to construct implements and weapons for their capture, control and destruction. In this dominion, man, even in his lowest estate, proclaims his title to manhood, and indicates the

vast space which separates him from the highest order of brutes. But in the ability to construct and speak a system of language; in the ability to learn and speak the language of other systems than his own; in his power to attain, by intercourse with, and instruction from others more learned than he, to still higher mental improvement, man asserts, incontrovertibly, his immense elevation above all other animal existences. No mere grade in a series is here marked; but a new series, with heavenward tendencies, is established. But it is neither in anatomical nor mental characteristics that the distance which separates man from all inferior orders is most clearly appreciated. Vast as it seems from the views which we have taken, let us proceed to our

3d. Stand-point of moral attributes. It is here that we shall obtain a still more convincing view of the intervening distance that, from our previous two stand-points, we have contemplated as separating humanity from all below it. It is here that we see, sharply drawn, the boundary lines between instinct and reason, because here, in obedience to his moral nature, man subordinates his instincts to his reason. The brute is a creature of instinct alone. Whatever of reason he may occasionally evince is in strict subordination to instinct. Natural instincts control and govern all his actions; and if he reasons at all, it is in furtherance of his instinctive desires. Man has, also, his instincts. Self-preservation, self-gratification, sexual love, hate, and revenge, are instinctive. But not as in the brute does man's reason minister to, and subserve these instincts. On the contrary, these natural instincts are subordinated to his reason; and just as he succeeds in such subordination, does he assert the divinity of his humanity. We sometimes say, figuratively, that a man is a brute; what do we mean by this speech, but that such a man is, to a great extent, following his natural instincts—failing to control them by, or subordinate them to, his reason? There is, probably, no example of humanity however low (unless bereft of reason) which does not, in a greater or less degree, control and govern his instincts. This is the prerogative of humanity. The power to subordinate instinct to reason is absolutely wanting in the brute; in fact, as has been already stated, whatever of reason the brute may have, is the slave to animal instinct. Instinct is the master in the brute, but the subject in man. And man, in his mastery over his instincts, where they interfere with his higher aspirations, asserts his humanity and vindicates his claim to immortality. Whatever belief may be entertained as to my former two positions, whether coinciding with the sentiments which I have advanced, or regretfully distrusting them, it would seem as if there could be no doubt upon this last proposition. It is here that we *feel* ourselves to be more than the beasts which perish. In our love of the beautiful and the true, in our admiration of the mighty and the noble, in

our appreciation of the grand and the sublime, in our conception of the vast and the awful, in our desire to grasp the infinite, in our adoration of the Omnipotent, in our aspirations to a still higher life, we realize our God-given dignity and lay hold upon our heavenly birthright.

From this expression of faith which rises in my own mind from a contemplation of the facts to which I have called your attention, let us recede to a strictly logical conclusion, and ask what they actually prove? To this I reply: They prove that the order of animate being is not an unbroken series of uniform gradation; and, consequently, it affords no evidence of an autogenous force, the assumption of which is based upon such gradation.

This doctrine of an ever operative plastic force, which the author of the Vestiges of Creation believed had first brought forth the lowest forms of animal life, and improving upon its own work by a sort of cumulative energy, and the operation of elective affinities through the long ages of the earth's history until the present grade was reached, of course, regards that force as merely an inherent property of certain forms of matter. It is consonant, if not identical, with the theory of Darwin as to the origin of species; and an earnest advocate of Darwinism, Prof. Huxley, delivered, something over two years since, a lecture entitled "The Physical Basis of Life," which, as is indicated by its title, recognizes the same inherent spontaneous principle, property or force. I mention this effort of Prof. Huxley, not for its singularity—for he is but one of a numerous class of philosophers who entertain, and strenuously advocate, both in season and out of season, similar views—but because it has attracted more attention, both in this country and in Europe, than any other similar paper published for a long time.

Physical basis of life is used as entirely synonymous with protoplasm; and the meaning of the author would not be distorted by the expression: protoplasm is the physical basis of life. Now, if by protoplasm was merely meant a certain kind of material substance or pabulum, which constituted a physical basis or substance necessary to the support of life, a very correct idea would be very capitally formulated. And indeed, the way in which he talks some of the time in this lecture is, certainly, entirely consonant with such a meaning of the term; for example, when he says that "plants can manufacture fresh protoplasm out of mineral compounds, whereas animals are obliged to procure it ready-made, and hence, in the long run, depend upon plants. An animal cannot make protoplasm, but must take it ready-made from some other animal, or some plant—the animal's highest feat of constructive chemistry being to convert dead protoplasm into that living matter of life which is appropriate to itself." He also says: "this present lecture, whatever its intellectual worth to you, has a

certain physical value to me, which is conceivably expressible by the number of grains of protoplasm and other bodily substance wasted in maintaining my vital processes during its delivery."

He contemplates, also, the recourse which he shall have to savory roast mutton, to supply this waste of protoplasm, whereby ovine protoplasm shall become human protoplasm. His fancy, too, dwells upon the pleasure he might derive by supping upon lobster, but for the fear of putting his digestive organs to too severe a test, and thus converting crustacean protoplasm into the human article; and further, his possible shipwreck, and the feeding of lobster upon himself, whereby the compliment would be returned, and Huxley protoplasm become transubstantiated into crustacean protoplasm.

Now, all this might be good orthodox common sense and philosophic physiology. But Prof. Huxley takes good care that we shall have no excuse for so construing it; for he compares the properties of protoplasm and the changes which it may undergo to the changes wrought by the chemist when he effects that combination of oxygen and hydrogen which results in the production of water, and asks, "what better philosophical status has 'vitality' than 'aquosity'?" And again, he says, "If the properties of water may be properly said to result from the nature and disposition of its component molecules, I can find no intelligible ground for refusing to say that the properties of protoplasm result from the nature and disposition of its molecules. But I bid you beware that," he frankly admits, "in accepting these conclusions, you are placing your feet on the first rung of a ladder which, in most people's estimation, is the reverse of Jacob's, and leads to the antipodes of heaven. It may seem a small thing to admit that the dull vital actions of a fungus or a foraminifer are the properties of their protoplasm, and are the direct results of the nature of the matter of which they are composed. But if, as I have endeavored to prove to you, their protoplasm is essentially identical with, and most readily converted into, that of any other animal, I can discern no logical halting place between the admission that such is the case, and the further concession that all vital action may, with equal propriety, be said to be the result of the molecular forces of the protoplasm which displays it. And if so, it must be true, in the same sense and to the same extent, that the thoughts to which I am now giving utterance, and your thoughts regarding them, are the expression of molecular changes in that matter of life which is the source of our other vital phenomena."

I cannot refrain from the remark right here, though, of course, it is not offered as an argument, that, judging by the quality, Prof. Huxley's thoughts on this last named point might very possibly, figuratively speaking, emanate solely from protoplasmic molecular changes on a level with the "dull vital action of a fungus or a

foraminifer," though it is to be hoped that the thoughts of his audience in reference thereto may have had a higher origin; and that molecular change was the instrumental process through which they took, not the cause of their taking, form. I have made a quotation to show you, not only the nature of the mental protoplasm which Prof. Huxley offers, but also, that he does not disguise it by either flavor or condiment. He, evidently, administers his pills without sugar-coating. For this boldness let us sincerely render him our thanks.

The plain unvarnished question which is here forced upon our consideration is as follows: is protoplasm, in virtue of its physical and chemical composition, possessed of an independent organizing force? If so, it may well claim the prerogatives which have heretofore been awarded to vitality. If so, a mass of protoplasm ought to rise by its own inherent and independent energy or force into organizing activity, and assume, unaided, organic form, and display all the phenomena of life. Does it ever do so? Prof. Huxley and the school of philosophy of which he is a bright and shining light, have never shown us a single example of such action, and until they can do so, their protoplasm lacks its physical basis, and their claim is not worth a moment's credence, or hardly a moment's consideration.

The simple facts, that are at present established, are, that the so called protoplasm is a material which living organisms of the vegetable kingdom make by selecting and compounding elements from mineral compounds. This process of making protoplasm by living vegetable organisms, is a function possessed only by them. Art has never duplicated the process. There is no known instance of the elements combining to form protoplasm by their own power or elective affinity; but in every known instance a previously existing living organism seizes upon the elements and combines them to form protoplasm. Protoplasm when thus formed has no power or force by which, unaided, it can rise to a higher dignity; but it may be acted upon by a living organism, or it may fall under the influence of chemical force. If acted upon by the former, it becomes organized and forms a constituent of the organism; if not so acted upon, *i. e.*, if plant protoplasm, separated from the organic plant, or Prof. Huxley's roast mutton protoplasm is not consumed by some animal and thus brought in contact with a living organism, it becomes a prey to chemical force, and by it is resolved into its original elements, which elements may be selected by some plant and reconstructed into plant or vegetable protoplasm. Before protoplasm or protoplasmic elements can take the first step upwards in development, it or they must be selected and appropriated by a living organism; and in every succeeding upward step until it reaches the grade of living organic tissue, protoplasm derives whatever of force it displays from the organism

under whose auspices it is being advanced and into which it is becoming incorporated. However perfectly elaborated protoplasm may be, if left to itself, unaided by the influence of a living organism, it loses whatever of energy or force it may thus far have obtained, and, under the action of chemical laws, begins a downward course. The exceptions to this rule will be found in the ovum of an animal and in the seed or germ of a vegetable. In these instances the egg or seed protoplasm has enjoyed an additional advantage from impregnation, which gives it a power of remaining for a variable period of time in *statu quo* until, under favorable circumstances, it springs into independent, organizing action. If such favorable circumstances should not surround it, chemical force at last overpowers the latent independent spark, and, by its action, sends it down again to the bottom of the series.

But in this endowment of the ovum or seed with a certain degree of independent force, another interesting and important process is seen, which sheds a flood of light upon our subject. For example, the egg of an oviparous animal is a very capital specimen of animal protoplasm. It may be consumed and appropriated by another animal. Prof. Huxley, for instance, may partake of it in lieu of roast mutton protoplasm, and in the changes which it will undergo, and in the support to his exhausted energies which it will afford, it will fully vindicate its title to first-class protoplasm, even though it may never have enjoyed the advantage of impregnation. But what would be its fate, if, under the last supposition, an effort were made to hatch a chick from it? The answer is found in two simple words, viz.—*addled egg*. Where, then, are those properties of this protoplasm which result from the "nature and disposition of its molecules," which Prof. Huxley could find no intelligible ground for discrediting, and which to him stand in place of all vital action? Has not the first rung in his anti-Jacob's ladder broken under the step? and is it not fortunate that it has broken? for he acknowledges that, in most people's estimation, it reaches not to heaven, but to the other place, as Hamlet has it.

But let us suppose that another specimen of egg protoplasm has been impregnated and placed under favorable circumstances for hatching. Mark the interesting and mysterious change! A new being springs into existence, endowed with all the powers of the parent. Whence the force which this mass of protoplasm now displays and which it did not possess before impregnation? Some animals deposit their unimpregnated eggs in places favorable to their development; now if these eggs are not found and impregnated by the male, they soon decay under the operation of chemical law, although they are surrounded by the physical forces which are not only favorable to, but necessary for their development; if, however, the male finds them and performs his function,

they thereby become the recipients of a force through which they spring into energetic, organizing activity. Whence, and what, again I ask, is the force which this mass of protoplasm now displays? It must be acknowledged that, as mere protoplasm, it had it not; nor can it be claimed that the impregnating fluid is protoplasm; and if it were protoplasm, there being only contact between it and the egg protoplasm, and no mingling of the two forms of protoplasm, the vivifying influence which is imparted by the one and received by the other must be regarded as a force which the most perfect form of protoplasm did not, by the "nature and disposition of its molecules," possess. But as impregnating fluid is not protoplasm, the vivifying force must be looked for elsewhere than in protoplasm, notwithstanding the "nature and disposition of the molecules" of that substance. Protoplasm is a good physical basis or material for the support of life; but before it can live and grow it must become vivified from another source than itself.

Another disciple of the so-called new philosophy is Prof. Barker, of Yale College, who delivered a lecture in New York before the American Institute early in 1869, which elicited from the press of the country pretty general discussion. The subject of this lecture was: *The Correlation of Vital and Physical Forces.* Surely this is a pretentious title. To establish a reciprocal and convertible relation between physical forces and that mysterious force which constitutes life, and for which the term vital is so apt an adjective that even the new philosophers themselves continue to use it while denying the quality which it represents, is, certainly, a work which challenges boldness of enterprise and confidence of power. But Prof. Barker's boldness and enterprise are first displayed in an attempt to level vitality down to the grade or status of a physical force. He says: "Every particle of matter within the body obeys implicitly the laws of chemical and physical attractions. No overpowering or supernatural agency comes in to complicate their action, which is modified only by the action of the others. Vitality, therefore, is the sum of the energies of a living body both potential and actual."

Now, is it true that the matter of a living body obeys implicitly the laws of chemical and physical attractions? If so, what law of attraction does the matter of a dead body obey? Certainly the matter acts very differently in the two conditions. It is not unrestrained chemical and physical attractions in both instances; and no one can deny that a dead organism is the seat of chemical and physical actions alone. And, if this is true, there must be an overpowering force in the living body which does exert a restraining and controlling inflence over chemical and physical attractions.

The manner and mode of death, and the circumstances which

surround the change from life to death in some rare instances, afford a striking illustration of this fact. For instance, a soldier upon the field of battle, in full health, kneeling upon the right knee with the left foot advanced and firmly planted, while taking aim in this position receives a shot which instantly destroys life, and leaves the body rigid in the position described. Here is the same physical body or substance, vigorously living in one instant, in the next dead. Now let us contrast the changes which begin to occur immediately after death, with those which were in active operation just before. And first let us notice a change which is due to the physical force, gravitation. The fluids of the body begin, in obedience to this force, to settle into the lowest portions; and so far as anatomical structure will permit, they will find their way thither. This hypostatic accumulation of fluids is familiar to all who have had much to do with the cadaver. But while life was present no such gravitation of fluids took place. On the contrary, the blood in the veins below the heart and the lymph in the lymphatics and thoracic duct mounted upwards in direct opposition to the force of gravity.

In reference to this point, Dr. Beal asks: "Does the tree grow away from the earth, or its roots into it, in obedience to the laws of gravitation? * * * * Of course, it will be said that capillary attraction, osmose, and other forces, contribute in a highly complex manner to bring about these results; but every one at all acquainted with the subject knows, that the facts have not been, and cannot be, explained." Dr. Beal might have added that the dead organism of a tree afforded the same physical facilities for capillary attraction and osmose, as did the living; yet, here, these physical forces fail to operate; no sap laden with the elements of plant protoplasm mounts toward the topmost branches.

As to the operation of chemical force, our poor soldier who fell at Seven Pines, under the favoring influence of a Virginia summer, became at once the seat of a vigorous breaking up of former combinations, and a recombination of the liberated elements. But before death these combinations were undisturbed. Elements of tissues and fluids which began to shun one another immediately after death, before that change, had remained in a firm and harmonious combination. Some force must have been present and operative, before death, which *was* "overpowering," and which *did* "complicate" the action of "chemical and physical attractions."

Prof. Barker's "therefore," then, falls to the ground, and vitality is something more than the sum of physical energies. Vitality is not the sum of any energies whatever, but the mainspring and source of those energies. It is the cause of energy, not its manifestation.

Prof. Barker illustrates, or rather adduces instances of, the cor-

relation of physical forces, i. e., their reciprocal relation to one another, as evinced in the conversion of heat into motion and motion into heat; heat into electricity and electricity into heat, etc. He then shows that the various changes going on in a living animal organism under the inspiration of, or in obedience to, vital force, are accompanied by, or result in, the development, simultaneously, of certain physical forces; as for example, heat, motion, and in some instances, electricity. He shows, also, that the brain changes which take place in mental operations, develop heat; and even goes so far as to measure the different degrees of heat developed by different mental operations or conditions. And this he calls a correlation of physical and vital forces! Surely this is correlation with a vengeance! Such a correlation is a correlation which correlates in one direction only. It sounds very much like the proposed division of game between the pale faced and Indian hunters, who together had shot only a turkey and a crow. Pale face says: "I'll take the turkey and you may take the crow; or, you may take the crow and I'll take the turkey." But the copper skin was smarter than Prof. Barker deemed his audience, for he replied: "It's turkey you and crow me all the time." With Prof. Barker, it is vital force developing physical force all the time, with no instance of physical force begetting vital force.

Until the disciples of the new philosophy are able to convert light, heat, electricity, motion, gravitation, and other forms of physical and chemical attraction, one or more, or all of them, into vital force, there can be no proof of a correlation between physical and vital forces. As yet, they have not been able to accomplish this; and we must, for the present at least, continue to procure our new supplies of living organisms by the same old method; each must beget its kind according to methods which have obtained from the beginning. We must wait patiently till the new philosophy succeeds in taking its first sure step in this direction. That accomplished, we can, perhaps, look confidently forward to the time when additional skill and increased facilities will enable them to reproduce extinct forms. Then museums of fossil remains will indeed become *passeé;* for the trilobite, the plesiosaurus, the megatherium, and the mastodon, reappearing under the magic touch of science in all their pristine vigor and beauty, shall lie down together, and a little philosopher shall lead them! Then, forsooth, the millennium of science will have dawned upon a startled world.

Gentlemen Doctors: It may, perhaps, strike you that this lecture is but a dry morsel to offer you on this parting occasion; that the last hour of the session should not have been devoted to the consideration of a scientific subject, but rather have been used for the purpose of giving such sage advice upon general subjects as my experience might warrant. How, for instance, to so deport your-

selves as most surely to insure professional success. I confess that I should shrink from grappling with this subject. Professional success will depend entirely upon your individual selves; upon your individual adaptiveness to the discharge of professional duty; and according to this adaptiveness, will the degree of success to which you may attain, be measured.

The parting injunction, which, above all others, I would lay upon you, is expressed in these four words: *endeavor to deserve success*. Your endeavors in this direction must relate to the earnest and thoughtful cultivation of science; to the diligent and honest discharge of your duties to your patients; to the equally honest, and, sometimes, fearless performance of your duty to community.

Thus far, it is probable, that you are all debtors to the world, having received from, more than you have been enabled to render to, your kind. I know of no one thing more healthy in its influence upon individual character than a full appreciation of this fact, if it stimulate to efforts to transfer the balance to the credit side of your account.

And, gentlemen, when finally you shall

> "Wrap the drapery of your couch about you
> And lie down"—

in your last, long sleep—that your account shall show that you have lived for the betterment of the world, is the earnest hope of your Alma Mater.

After the valedictory, Dr. A. L. Buchan, of Wisconsin, stepped forward, and, in a very impressive speech, presented an elegantly carved armed chair to Professor Rea, lecturer on Anatomy.

The chair is made of elegantly finished black walnut, of beautiful, easy-chair design, with carved skulls upon the arms. Professor Rea, at the close of the presentation speech, responded in the following manner, his remarks being received with applause both loud and long:

There left this institution at the end of the session of 1866–7 a class that I have always regarded as the best we have ever graduated. But now, I think, all things considered, looking at everything, I think that will have to step aside, and the class of 1870–71 take its place. For you will be pleased to learn, that we reckon students here as they are anatomists, the time having passed when anything else was counted. Here

> Anatomy makes the man, the want of it the fellow,
> The rest is but leather and prunella,

and dog leather at that, with a slight mixture of ipecac, oxytoccia, waxed ligatures and "what's the matter." This beautiful testi-

monial, gentlemen, takes me quite by surprise, so much so that I fear I shall forget the speech I had prepared for the occasion. You have noticed, perhaps, that *my* speechmaking depends very much on my *subject*. When I first saw this splendid thing approach, you will excuse me if I felt a little "chairy," for it seemed to me there was some "skullduggery" about it.

In the selection of this beautiful, durable and valuable memento, gentlemen, you have aptly embodied the suggestion that the many years I have stood for anatomy in this institution, is rapidly bringing me to that point of time in which your elegant gift will become more and more necessary to my comfort. Be assured, I prize it more than any present I ever received, and shall keep it among my choicest treasures, not alone on account of its intrinsic value, but of the peculiarly pleasant circumstances under which it is received; and when the gray hairs and tottering steps shall call more loudly for longer recesses from labor, pillowed in these soft cushions, embraced by these kindly representatives of your strong and generous arms, my hands resting on these artistic emblems of our past associations, one of the happiest thoughts of these hours of sweet rest will be that it came from the magnanimous hands of the class of 1870–71.

Gentlemen, I thank you.

President Blaney then announced that he had resigned his position as head of the faculty, and that at the recommendation of the faculty, the trustees had appointed Prof. Joseph C. Freer to fill the vacant position. The new President delivered a short address on being inducted into his chair.

A prize of $25 was bestowed on Dr. W. T. Montgomery, of the graduating class, for the best anatomical preparation.

This premium was offered by Chas. T. Parkes, M.D., the Demonstrator of Anatomy. It is but justice to the several competitors to say that the Committee of Award paid a high tribute of commendation to all the specimens of the work brought up for inspection.

The benediction was pronounced by the Chaplain, and the "Commencement" of 1870–71 was *fait accompli*.

Cook County Hospital. Reported by CURTIS T. FENN, M.D., Chicago, Ill.

Nov. 22. Surgical. POWELL. Case 1. Dislocation of the outer extremity of the clavicle—an exceedingly rare accident. Rheumatic patients sometimes had such displacements, but usually on both sides. A force capable of producing a dislocation like that would cause a fracture in ninety-nine cases out of a hundred. The extremity of this bone is movable. If rheumatism had been the cause, it would have been held firmly. The books stated that this dislocation was easily reduced, and held in place; but experience showed that little could be done. Shortening, from displacement or fracture of this bone, was of small moment. The indications for treatment were the same in dislocation and fracture. The old figure-of-eight bandage would be found to be the best, after a trial of all the other apparatuses for keeping the bone in place. In unruly patients and children, and in cold weather, the broad adhesive straps, first suggested by Prof. Freer, for such cases, ought to be used.

2d Case. Syphilitic disease of different types. Chancre nine months ago. A marked combination now of two or three different diseases, rupia being the principal. Syphilitic cachexia developed. The mucous membrane of the mouth covered with white patches; the skin white. The development was from the soft structures. It was secondary. He was anæmic, and exceedingly debilitated.

Ques. Was there anything having a tendency to increase the plasticity of the blood?

Student. Ans. Quinine and iron.

Yes; iodide of potassium would not do. We should select such preparations as could be taken. The elixirs of the shops contain little iron. Iron by hydrogen in pill answered exceedingly well; after a while iodide of potassium, with a tonic mixture. If it should be necessary, the following formula would do well: ℞. Pot. iod., ʒiv; Hyd. protiod., gr. iv; Aquæ, fʒiv—vj, M.

We should remember that the tendency of syphilitic disease was to cure itself. Such cases were not ordinarily received; but, if this patient was allowed to remain, he would be shown to illustrate the effect of tonic treatment in syphilis. Sleeping with

that person might be productive of constitutional disease without the primary.

3d Case. Pistol shot wound of the chest. There was crackling in the cellular tissue; so the lung must have been wounded. On auscultation, bronchial breathing was discovered; so there must have been a little solidification. Inflammation had not been kept down by Norwood's tincture, tartarized antimony, or any such thing. The house surgeon had amused himself by poulticing the flesh wound.

4th Case. Necrosis of the spinal column. Disease traced to an injury. Matter had worked its way into the cavity of the chest. A pathological specimen of necrosis of the spinal column and angular or Pott's curvature; no lateral curvature; destruction of the body of one vertebra; processes not at all affected. The effort of repair often began by anchylosis of the transverse processes. The resulting paralysis was easily accounted for. The cord had been pressed upon; or, it had been bathed in pus and subjected to myelitis. The bodies of several vertebræ are usually eroded by pus. Nature effected a cure by anchylosis above and below. Treatment: Rest; taking the inflamed surfaces away from each other. There had been several such cases here. When post mortem examinations had been made, it had appeared perfectly surprising how such changes had been endured.

Pathological specimen. Sack of hydrocele. The testicle occupied the inferior and posterior portion of the sack. It was remarked, that we should not desire the obliteration of the sack, for the function of the testicle would be destroyed by this means. We should tap the sack low, passing the trochar upward, and avoiding the testicle; should allow the fluid to pass out, and should inject a gently stimulant fluid: the best was a solution of iodine, twenty grains to the fluid ounce. The tissues were offended by the injection of anything foreign, as warm water. Tinctures should not be used, for alcohol was a poison to the tissues. It was intended the next time such a case presented, to use the battery and electricity. On the sack being opened, fluid ran out, a little turbid. There was a beautiful, serous membrane, perfectly clear and clean. How to establish a rate of absorption equal to that of effusion, was the question.

Nov. 29. Medical. Ross. Pleurisy, with effusion and tuber-

culosis. Treatment: Poultice and small blisters, cod liver oil, and ferruginous tonics. The effusion would be absorbed better by such means at first, but after a while he should give fifteen grains of chlorate of potassa with the iron.

Surgical. POWELL. 1st Case. Club-foot. Subcutaneous division of the tendo Achillis several days ago. The patient not seen again till now. After the division, we should take hold of the foot and straighten it. A surgeon in Philadelphia broke the tendons and bones. We should keep the foot well in place, or the operation would amount to nothing. When the splint was applied the case was just begun. The object should be to get the patient to stepping on the sole of the foot; after that was attained, the case would improve constantly.

2d Case. Deep abscess of the lower jaw. There might be simply a collection of matter. A probe was passed in different directions, but did not come in contact with dead bone. It illustrated what should be done with deeply seated abscesses, whether lumbar, psoas, or simple. They should be opened freely at first, and afterwards treated antiseptically. As a consequence of neglect, here the matter had spread all over the cheek. We should examine this case again with interest. It would not do to poultice a thing like that too much.

3d Case. Epileptiform neuralgia, or tic douloureux of Trousseau. These cases formed a class of very great interest. There were two forms of the disease. 1. Non-convulsive. 2. Epileptiform. The first having no twitching; the second characterized by spasmodic movements of the muscles during the paroxysm of pain. Both forms always affected the terminal branches of the fifth pair of nerves only. The second branch, or submaxillary, was most frequently the seat of disease. He had first seen this case in 1867. It began in 1865. On entering the office, the man would sit down quietly, perhaps, then jump and grasp his head, and run around the room, apparently in great agony. The paroxysm would cease in a moment, when he would sit down again, and await its return sooner or later. If he talked or got cold, the fits became worse. They were aggravated by cold or damp weather. This was epileptiform neuralgia. The atrocious neuralgias, as Gross called them, were always epileptic. There is a disease called the tic, akin to St. Vitus' dance, in which the convulsion is in some of the terminal

branches of the fifth, but without pain. In this case, the pain started from the region of the right mental foramen, and ran forward. All that was done then, was to divide the nerve at the mental foramen, and to tear out or exsect one inch of it. The pain ceased instantly, and stayed away for six months. This patient had previously received an incision from the temporal muscle to the lower part of the face, but it had done no good, for it had not touched the nerve. At the end of six months, he came back as he (Dr. P.) was going East. Probably, at that time, the jaw should have been trepanned, and the nerve still further removed. A little dental instrument should have been passed into the canal, and the nerve twisted out. But in the winter of 1867-8, a section of his jaw was removed. One year later this patient again returned. He went to the hospital and was operated on. The bone was found to be too friable for another resection, so the back portion of his jaw had to be disarticulated, and removed entire. Thereafter he remained free from pain one year and a half. But it has returned. Three weeks ago the pain came back severely, characterized by the former symptoms. He cannot describe it. (The patient being called on, stated he suffered so intensely at times, that his mouth became filled with blood without his being able to discover where it came from. At this point, a paroxysm occurred, apparently induced by mental excitement.) Only two things gave any prospect of relief: 1. Opium. 2. Division of the nerve. Trousseau, after a practice of over thirty years, said that he had never seen a case radically cured. But he was a physician. Perhaps the surgeon, by repeated exsection of the nerve, may effect a cure. It was the worst disease in existence. We should reflect on this case. The pain now had its seat in a fibrous band, taking the place of bone which was exsected, and in the end of the remaining jaw. The points to be remembered were, how to locate the disease, and to make a diagnosis. Then we should not be able to promise a great deal.

4th Case. Stump of leg. Re-amputation. Several causes. 1, projection of an angle of the tibia, making it difficult to adapt an artificial leg; 2, tissue drawn too tightly, increasing the danger of ulceration; and 3, dead bone. The operation should be performed as though it were the first. Assistants should always anticipate the wants of a surgeon. Chloroform administered.

The stump elevated to get as much blood back into the body as possible.

Dec. 2. Pathological. JOHNSON. Cirrhosis was not common in those who had hypertrophy or dilatation of the heart. Organs exhibited: *Heart*, weight, 14 oz. 5 dr.; *Spleen*, weight, 2 oz. 3 dr.; average weight, 7 oz., indicating a failure of nutrition. *Kidneys*, weight, 4½ oz.; normal weight, 4 to 6 oz. The surface is granular and mottled, the cortical portion reduced to a mere line in thickness. There was atrophy of the true secreting structure. The conducting structure normal. *Query.* Were the heart changes causes or effects? *Lungs.* The left adherent to the diaphragm, therefore there had been more or less of pleuritic inflammation. Certain conclusions might always be obtained during life. 1. Whether the heart was enlarged. 2. Whether hypertrophy preponderated. 3. Whether dilatation prevailed.

Surgical. POWELL. 1st Case. Fracture of the leg. Both bones united, though it had been slowly. The ankle was slightly stiff. If a starch bandage had been put on at first, the leg would have been concealed from view, and the ankle a good deal stiffer. A starch or plaster of Paris bandage should be applied, now, only to prevent accident and to encourage the patient to get out. He had been an extremely intemperate man, verging on delirium tremens when admitted. There had been no effort at repair of bone during the first four weeks.

2nd Case. Delirium tremens and fracture; admitted after a spree. Instead of trying to quiet by opium, they had sickened him by calomel and afterward tartarized antimony. This treatment was applied where opium had failed. Reference to the kind of splint needed. This person was very nervous, a mild form of the disease from an excess of stimulant. A little starch should be employed to prevent his getting the splint off. We should starch both the pad and the bands. All splints should be well padded. Simply rolling them with a bandage was not enough.

Foreign Correspondence.

GLASGOW, Scotland, January.

EDITOR CHICAGO MEDICAL JOURNAL:

Dear Sir—Medical education at home, is very different from that in England, and with your concurrence, I would like to lay before your numerous readers something of the mode of "making doctors," as I saw it in London.

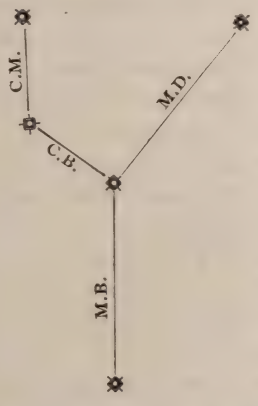
The first hospital I visited, was St. Bartholomew's, and as I passed through the gate I inquired for some one that would give me information concerning lectures, clinics, and ward-visiting, and the porter directed me to *Mr.* Marant Baker's door. I found his door and was soon ushered into his presence, at first supposing he was secretary or some such functionary, because he was called *Mr.* instead of *Dr.* Baker. Imagine my surprise, to learn, subsequently, that he is one of the assistant surgeons of that hospital —has a ward in it as Professor of Physiology and Pathological Anatomy in the school connected with St. Bartholomew's, and has revised some work on physiology, and yet is called *Mr.* Baker! I looked over the list of the medical faculty for his school and found some of the gentlemen's names preceded by *Mr.* and the balance by *Dr.* At home, all faculty names have the Dr. before or the M.D. after each one.

This new idea led me to inquire "why the difference?" and the answer "In England, all *Physicians* are called *Doctors*, and all *Surgeons* are called *Misters* (properly *Masters*)" determined me to look up the subject of medical education more fully, and the results I herewith transmit: I *may* make some slight misstatements, but in the main I think you will find me correct.

In the United States, physicians and surgeons are educated together from their first readings till their graduations. In England, they are in the same classes only a portion of the time; beyond that time they may be said to be separately trained. All surgeons' signs and doorplates have the name preceded by Mr. and followed by "Surgeon"—*e. g.*, "Mr. J. H. Smith, Surgeon;" Prof. Erichsen's doorplate reads simply, "*Mr. Erichsen.*" If a man be both physician and surgeon, then he has it "Dr. ——, Surgeon."

Four years' study and hospital walking, followed by a satisfactory final examination, give a young man the degree "*Bachelor of Medicine.*" Both physicians and surgeons must take this degree, and they remain in the same classes, attend same lectures, clinics and wards, till this degree is obtained. Subsequently, the physician can take his M.D. degree, by two years' attendance upon hospital work, and a required examination, thus consuming *six years* in acquiring a degree, that, at home, is to be had by three years' work. The surgeon, after obtaining the M.B. degree, must take the *Bachelor of Chirurgery* degree, and this is to be followed by two years in surgical wards in hospitals before he can take his *Master of Chirurgery* degree; when he has that degree, then he is "Surgeon," and not till then.

Finding out these points revealed to me, how it is, that six years must be spent in acquiring a physician's or surgeon's degree. Very many of the profession never go any farther than the M.B. degree, for with that they can practice medicine and collect fees in any of the British possessions. Ambitious men, however, get the M.D. or C.M. degree and run the gauntlet at the Royal College of Surgeons and Physicians, and at Apothecaries Hall for the Members' and Fellows' honors there. The following diagram may serve to illustrate the two paths pursued by M.D.'s and C.M.'s:



Both occupy six years. The principal part of studying comes in the first four years, and I have been at some pains to so arrange it, that it can be easily seen, what a young man has to go through with, in order to get even his first degree, M.B.

Before beginning his studies, the young man must see that his name is entered on the books of the Medical Registrar, giving notice where he intends to study and attend lectures. Four times annually must he report to the registrar, give an account of himself, and see that his name is

"entered" on the books. It is for the student's own interest to see to this registration business, otherwise, that functionary's certificate not giving enough time to the young man's studies to suit his examiners, will not admit him to the examinations, and he must wait over long enough to make up for lost time with the registrar reporting to him quarterly.

The M.B. examination is divided into two parts, viz.: "*First* and *Second* M.B. Examinations," and they are two years apart. The first requisite to the *first* examination, is a degree in *arts* at some university—and if the required piece of vellum cannot be produced, then the young man is at once examined in the branches necessary—Greek, Latin, mathematics, natural philosophy, elementary chemistry, English language and literature, history, and one modern language, German or French. This examination must be passed immediately after registering. In one year from that time comes in another examination, called the "Preliminary Scientific Examination," and consists of a close questioning in the sciences—chemistry, botany, optics, etc. Then follows another year of professional studies and hospital walking, following which, is the first M.B. Examination, and here the student must produce certificates to the following effect:

(a) Of having completed his nineteenth year.

(b) Of having passed Preliminary Scientific Examination.

(c) Of having attended a full course of lectures on three subjects from the following list: Desc. and Surg. Anat.; General Anat. and Physiol.; Comp. Anat.; Path. Anat.; Mat. Med. and Pharm.; General Path.; Gen. Therap.; For. Med.; Hygiene; Midwif. and Dis. Children; Surg.; and Medicine.

(d) Of having dissected, two winters.

(e) Of having attended a course of Practical Chemistry in the laboratory.

(f) Of having attended to Practical Pharmacy.

And he is examined in the following: 1. Anatomy; 2. Physiology; 3. Materia Medica and Pharmaceutical Chemistry; and 4. Organic Chemistry.

This examination, like most of them, is followed by an "Examination for Honors," and the candidate who evinces sufficient merit, in the estimation of the examiners, in one or more of the

above four subjects, receives a prize of forty pounds ($200) annually for the subsequent two years, in quarterly installments.

In two years from the first M.B. examination, comes the second, and no candidate shall be admitted thereto, unless he have produced certificates to the following effect:

(a) Of having passed the first M.B. Examination.

(b) Of having, subsequently to the first M.B. Examination, attended lectures on two subjects from the preceding list, not previously attended.

(c) Of having conducted *twenty* cases of labor.

(d) Of having attended for two years, surgical practice of a hospital, with clinical instruction and lectures on clinical surgery.

(e) Of having attended medical practice of a hospital two years, with clinical instruction and lectures in clinical medicine.

(f) Of having subsequently attended to practical medicine, surgery or midwifery, with special charge of patients in a hospital, infirmary or dispensary, for six months.

(g) Of having attained proficiency in vaccination.

The candidate is examined in the following branches:

1. General Path.; General Therapeutics and Hygiene. 2. Surgery. 3. Medicine. 4. Midwifery. 5. Forensic Med. 6. Medical and Surgical Anatomy. 7. Path. Anatomy. 8. Path. Chem.

After this examination also comes one for honors, and the successful candidate receives $250 annually for two years. Here the young man may stop in hospital work, and "locate" and practice so long as he lives—*never* be an M.D., and yet practice medicine and be upheld in courts of law and compel patrons to pay fees. No one, however, can practice here, be he anything whatsoever in the line of a quack, without the Bachelor of Medicine degree. I learn that homœopathists throughout England are *properly* educated, *first*, and preserve their regular diplomas for emergencies.

Supposing, however, the candidate wishes to continue work and study surgery. His next step will be to pass the examination for Bachelor of Surgery, and if he can meet the requisitions, he can present himself for this trial within three weeks after having passed his second M.B. examination. He must first present certificates to the following effect:

(a) Of having taken the degree of Bachelor of Medicine.

(b) Of having attended a course of instruction in operative surgery, and of having operated on the dead subject.

Passing this examination makes the candidate a Bachelor of Surgery, and in two years thereafter, he can present himself for the final gauntlet, and must present certificates to the following effect:

(a) Of having taken the B.S. degree.

(b) Of having, thereafter, attended for two years, to clinical or practical surgery, in a hospital or medical institution.

(c) Of moral character, signed by two persons of respectability.

He must pass examination on the following:

1. Logic and moral philosophy; names, notion and propositions; syllogism, induction and subsidiary operations; the intellect; the senses; the will, including the theory of moral obligation.

2. Surgery.

If a young man wishes to pursue medicine instead of surgery, he begins work with that point in view, soon as he has become Bachelor of Medicine, and the requisites to obtaining the degree of M.D. are, *two* years in a hospital, attending to clinical or practical medicine, followed by an examination the same as the candidate for the Master of Surgery degree passes, with the exception of substituting *Medicine* for *Surgery* in the items of questioning.

The first thing that greatly impressed me in learning the above facts, was, the exceedingly large proportion of hospital work that is necessary to obtaining *any* degree. *Nine-tenths* of the studies are inside the wards and amphitheatres.

Almost every school is connected with some hospital, and the didactic lectures are delivered within the hospital walls. Students here go from the lecture-room to the ward or amphitheatre without putting their caps on even, in many schools following their teacher, and seeing, on the patient, what the lecture has prepared them for. Post mortems are witnessed at any time without going a half mile for the privilege. In Guy's, students—*each one*—must, among other certificates, bring forward one to the effect, that he has made the post mortems of the hospital under the direction of the demonstrator of anatomy, for the space of *three months.*

All operations, lectures and clinics for the day, are advertised on the "board" hanging up by the outside entrance, and almost daily, some operation is performed. On one day, I saw at one sitting, Sir Henry Thompson cut for stone in one patient, crush a stone in another, Prof. Erichsen remove two cancers from breasts, and Prof. Jno. Marshall operate on a necrosed tibia, in the operating amphitheatre at University College Hospital.

The method of studying physiology, as I saw it in the Univ. Coll. Hosp. school, charmed me. I find it is entirely the fashion in all the English and Scotch schools to study this branch similarly, viz.: in *laboratories*, practically, just as chemistry and pharmacy are studied. It is not compulsory, to pursue it thus—it is wholly optional, but nearly all have the good sense to avail themselves of facilities thus offered. Students pursuing physiology in the laboratory are supposed to know anatomy well beforehand, and are thus prepared to, intelligently, take the first step in this work, viz., use the microscope. Every tissue is carefully examined, and the eye so trained, that future examinations reveal no guesswork on the part of students. The mechanism of microscopes is *first* taught by Jno. Hughes Bennet in his laboratory, and *then* the *tissues*. The instruments are furnished by the school, and magnify from fifty to five hundred diameters. Subsequently, is taught practical experimental philosophy, including experiments on animal electricity, contractility, excitability, pulsation, vision, voice, heat, respiration, etc., etc., with the aid of modern instruments, such as the galvanometer, kymographion, sphygmograph, myographion, ophthalmometer, laryngoscope, thermometer, spectroscope, etc.; analysis of morbid and healthy urine, of blood, bile, bone, etc., are carefully taught.

For purposes of investigation and experiment, guinea pigs and frogs are kept constantly on hand. The former are generally kept in great numbers, being bred and kept on the school premises, by most schools. Frogs are imported from Germany, English specimens being too small.

The private laboratory of the professor is a perfect forest of small and large bottles and jars, containing tissues preserved in alcohol, of all parts of the body, human and animal.

The dissecting room is generally a very quiet place, no talking

by students being allowed, except with the professor or demonstrators; of the latter, there are usually not less than four, and work can be carried on with little or no interruption by waiting for some one to assist the students. I had a particular desire to see the room, in Edinburgh, wherein the female students had so fearfully shocked the young Scotchmen, by dissecting the genitals in their presence, and caused thereby such an overflow of virtuous indignation and rude behavior to be shown by those young lords of creation. I accordingly went to it and found about sixty men at work so quietly, that one would think them all dumb. They were in two rooms, aggregating in area about the same as Rush College dissecting room; Prof. Turner and his assistants were among the students, showing and directing them. On the walls are hung "Rules for the dissecting room," notifying the students that a limited number of days is all they can have to dissect each subject in, *e. g.*, four days the subject will be kept on the back, before opening the chest and abdomen; two days allowed for examining viscera; three days with subject on face; two days for position for lithotomy; so many days for something else; consuming about fourteen or sixteen days in all. The cadaver is *turned* at the day appointed, per rules, whether it is dissected or not, and at the end of the fourteen or sixteen days the table is cleared.

During the first four years of professional studies, the classes are "graded." Studies—certain ones are "recommended" by the faculty for each year and these "recommendations" are the means of so thoroughly dividing first year from third year students, that the former are rarely seen in lectures on subjects "recommended" for the latter. No lecturer has at any one time, over two hundred and fifty students in the school at Edinburgh, where there are over *six hundred* students in all.

Medical books in London are not cheaper than at home, some of them cost *more*. We have to pay here in gold, and at home most of the books can be had for as many dollars and cents in paper currency. Nearly every man connected with a hospital, whether a professor or assistant, has edited or revised some work, and the endless array of professional works one sees in publishing houses and bookstores exceeds anything that ever I saw in that

line. Surgical instruments cost more here than in the United States.

Medical students here, as a rule, are in better circumstances, financially, than those at home. Remaining in hospitals so much of the four years as they are required, necessarily takes a good deal of money, and a poor man cannot afford it. A large proportion of the students take their degree in arts at some college and can easily afford it. Upon the whole, fees are higher than in the United States. *Everything* costs more here in medical schools; and physicians' and surgeons' fees are higher than with us. They charge a guinea ($5) for looking at a man.

Yours, etc., J. H. ETHERIDGE.

Editor's Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN & COOKE, whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

The Change of Life in Health and Disease: A Practical Treatise on the Nervous and other Affections Incidental to Women at the Decline of Life. By Edward John Tilt, M.D., etc., etc. From the third London Edition. Philadelphia: Lindsay & Blakiston, 1871; pp. 292; $3.

A Treatise on the Chronic Inflammation and Displacements of the Unimpregnated Uterus. By William H. Byford, A.M., M.D., etc., etc. Second Edition, enlarged; with numerous Illustrations. Philadelphia: Lindsay & Blakiston, 1871; pp. 248; $3.

First Medical Report of the Boston City Hospital. Edited by J. Nelson Borland, Physician; David W. Cheever, Surgeon. Boston: Little, Brown & Company; 1870; pp. 688; with Illustrations.

PAMPHLETS RECEIVED.

American Association for the Cure of Inebriates. Proceedings of the First Meeting, held in New York, November 29 and 30, 1870.

New York State Inebriate Asylum, Binghampton, N. Y. Annual Report of the Superintendent and Physician, for the year 1870.

Braithwaite's Retrospect of Practical Medicine and Surgery: Part LXII; January, 1871. Uniform American Edition. New York: W. A. Townshend & Adams, publishers; $2.50 per year; single No., $1.50.

The Half-Yearly Abstract of the Medical Sciences. Being a Digest of British and Continental Medicine, and of the Progress of Medicine and Surgery, and the Collateral Sciences. Edited by Wm. Domett Stone, M.D., F.R.C.S. (Exam.) Vol. LII, January, 1871. Philadelphia: Henry C. Lea, 1871; $2.50 per annum; single volumes, $1.50.

Catarrhal and Croupous Inflammations of Mucous Membranes. By Samuel G. Armor, M.D., Professor of Principles and Practice of Medicine, in Long Island College Hospital, Brooklyn, N. Y.

On the Cellular Structure of the Red Blood Corpuscle. By Joseph G. Richardson, M.D., Microscopist to the Pennsylvania Hospital, Philadelphia, Pa.

Transactions of the American Ophthalmological Society. 7th Annual Meeting. Newport: July, 1870; pp. 151.

No. 5. *University Series, Scientific Addresses.* By Professor John Tyndall, LL.D., F.R.S., Royal Institution: 1. On the Methods and Tendencies of Physical Investigation. 2. On Haze and Dust. 3. On the Scientific Use of the Imagination. New Haven, Conn.: Charles C. Chatfield & Co.; 1870; 12mo, 25 cts. series; nearly monthly. Five successive Nos., in advance, $1.10; ten successive Nos., in advance, $2.

Editorial.

Retirement of Professor Blaney.

James V. C. Blaney, M.D., incumbent of the chair of Chemistry since the organization of Rush Medical College, has resigned the position and has accepted from the Board of Trustees the Emeritus Professorship of the same branch.

Prof. Blaney has been induced to take this course from the large and increasing demands made upon him for his services in the practical application of the science in analyses, assaying, etc., which the state of his health, permanently impaired by his arduous labors and exposures while in the army, precluded his attending to in addition to the onerous duties of his chair.

Whilst we cannot but regret to lose the daily active co-operation of Prof. Blaney as a colleague, we are rejoiced that his unsurpassed practical skill as a chemist is meeting with deserved reward from that portion of the public which needs exquisite skill in this beautiful art.

The Alumni of the College will be pleased to hear that Prof. B., in accepting the Emeritus Professorship, still shows his attachment to the College and his earnest wishes for its continued prosperity.

It is needless to say that wherever he is known he is honored for his varied and profound scholarship, and, better still, is beloved as a whole-souled, high-minded, generous-hearted, courteous and genial gentleman.

Practical Chemistry.

Prof. Henry M. Lyman, M.D., who succeeds Prof. Blaney in the chair of Chemistry in Rush Medical College, is now busily reconstructing the laboratory of the building for the purpose of giving practical instruction in his department during the interval between the annual regular sessions. Every appliance for successful prosecution of this important and interesting branch of study will be afforded to students, and facilities which will hereafter render it entirely unnecessary for them to seek other cities, or foreign countries, for perfecting themselves in its practical details.

During the session which has just closed, Prof. Lyman has developed a success in experimentation, a clearness and systematic precision in exposition, a scholarly and thoughtful method, combined with a pleasing style as a lecturer, which have, collectively, surprised all but those sufficiently intimate with him to have become already aware of the strength and vigor he had acquired by long continued, earnest and industrious culture of excellent native powers of mind.

We write these words, not from the merely friendly spirit we naturally feel for a colleague, but because they are eminently merited, and we wish the Alumni of "Rush," and all interested in its welfare to know that we believe the place, so long and honorably filled by Prof. Blaney, is now occupied by a gentleman every way worthy of their confidence and high appreciation.

Clinics.

The daily clinics at Rush College are rapidly rising to high importance and interest. The average attendance of patients at the medical clinic, we are informed, ranges from thirty to fifty. The gynecological clinic, on Thursdays, and the surgical, on Saturdays, are proportionately equally well attended.

It is not more than the facts warrant, to say that the facilities for clinical instruction now possessed by the College, and available throughout the entire year, are not only equal to all the wants of students, but unsurpassed in every element of variety, importance and practical advantage by any other similar institution in the large cities of the continent. *En passant*, we must be permitted to say that, in this age of the world, medical colleges elsewhere than in large cities are anachronisms which it would be better for the profession to discountenance, than to seek its elevation by the doubtful agency of protective legislation. What the profession requires for its protection is knowledge—knowledge gained by actual use of the senses, by experiment, by demonstration. The day of dogmatism, however eloquently expounded, is past.

An Important Discovery.

During the beginning of the present winter, Dr. R. Dexter, of this city, discovered in his numerous dissections in comparative anatomy, that the spinal cord in the deer, antelope, and some

other animals, was mostly if not entirely protected from concussion by an unusual deposit of fatty cellular tissue, instead of aqueous fluid, which was continuous throughout the entire length of the spinal canal and membranes, and not heretofore mentioned. Since his first discovery he has made numerous other dissections, all of which tend to verify his former conclusions. It has stimulated several medical students to work in the same field, hence the necessity of a somewhat premature announcement. This discovery adds another link to the Darwinian chain. *Com.*

We understand that Dr. Dexter has been devoting large attention to comparative anatomy, especially that of the brain and spinal cord. *Palmam qui meruit ferat.* Further confirmation of his observations will be looked for with much interest.

Chlorate of Potash, etc., in Diarrhœa and Dysentery.

H. W. Richardson, M.D., of Woodstock, Ill., writes us that during the last season he treated some seventy-five cases of both diarrhœa and dysentery, with rapidly successful results, by the following method:

"No. 1.

℞ Potassæ Chlorat., - - - - ℥j;
Acet. Tinct. Opi., - - - gtt. v—x;
Tinct. Camph., - - - - - ℥ss;
Aq., - - - - - - ℥ij;

M. Sig. A teaspoonful every hour or two, as needed, to control the bowels.

To strengthen and improve the digestive organs, and aid digestion:

No. 2.

℞ Baudalt's Pepsin, - - - - ℥ss;
Bicarb. Soda, - - - - - ℥j;

Mix by trituration, and add—

Brandy, Water, - - - - ää ℥ss;

Sig. 20 drops in food every three hours.

No. 3. For Diet. When the child gets q. s. healthy mother's milk, don't change—otherwise use—

℞ Beef and Veal, - - - - - ää ℥ij.

Boil four to six hours in a quart of water; add a little salt; skim when cold. Mix this with equal parts of cow's milk and water. 20 drops of pepsin mixture added to one-third teacup of this diet,

and given to a child one to three years old, every three hours, will usually digest.

N. B. If patient is feverish, add to No. 1, Tinct. Gelsem. ʒss, or Tinct. Aconite, gtts. v to viij. The discriminating practitioner will understand how to vary the above formula to suit age and circumstances."

Explanatory.

A very large proportion of our subscribers are alumni of Rush Medical College, and as such are deeply interested in everything pertaining to it. This must be our apology for devoting so much of our space the present month to its chronicles. It will be seen, however, that very much of this matter is of general interest.

Back Numbers Wanted.

To complete files, Twenty-five cents each will be paid for the following Nos. of the JOURNAL for 1869: June 1, No. 11; July 15, No. 14; August 1, No. 15; August 15, No. 16.

News and Gossip.

CARL FORMES, the distinguished *basso*, it is said has married a lady physician in Vienna who cured him of an abscess in the throat. Carl is certainly generous. A few years since he presented a Chicago physician with an elegant piano for curing him of a sore throat which impeded his vocal success. So said the physician and the papers.——Twenty-five patients from the Insane Hospital attended the Fechter Matinee, at the Globe Theatre in Boston, recently.——A correspondent sends the *Iowa City Republican*, several columns of which are devoted to a recent resurrection case in that village. Aside from the excitement such affairs usually cause in country towns, there is developed a local professional opposition to the Medical College which is somewhat unexpected. We had supposed that the "Iowa City" school was the especial pet of our bucolic brethren in that State. The rela-

tives and friends of the defunct, together with a number of the local physicians, denounce the Faculty as the authors of the "outrage," but the latter utterly deny the soft impeachment, and claim that they get their *materiel* in States where the laws permit. The *corpus delicti*, duly injected, etc., for use, they claim was procured without their authority or consent. It is a pretty quarrel, as it stands, and we hope the enterprising gentlemen who seek to elevate the profession by starting a new school in a country hamlet, may find their way happily out of it. The fifth wheel never should squeak.——The *Reporter* (Philadelphia) publishes a number of puffs which its subscribers have sent him on renewal of their subscriptions, whereupon the *Richmond and Louisville* editor (with multitudinous associates) strikes out from the shoulder thus: "As to its value [*id est*, 'The largest Medical Journal in America'], there is a heavy [*sic*] file of testimony from distinguished physicians throughout the whole country, but these opinions are never published, because it is justly regarded as coarse, vulgar, and reprehensible to do so." First blood for the Southron.——A reviewer in the *American Journal of Medical Sciences* has a savage critique on Prof. Byford's new book on "The Theory and Practice of Obstetrics." He rages up and down the pages of our venerable, and usually exceedingly staid, contemporary, like a veritable "hot livered grammarian" gone out of his senses. Meanwhile it seems to us funny, and somewhat incomprehensible, that our quarterly *confrere* should have always, heretofore, puffed our respected townsman's books, and at this late day incontinently "goes back on him." The last book is immensely superior, both in doctrine and delivery, to either of its predecessors. "Why is this thus?"——Meanwhile we are reminded of what is said to be a fact by those who were there. A learned teacher (who is said sometimes to be a little careless in remarks he makes to other physicians' patients, as well as in his grammar), on occasion was exhibiting a speculum to the wondering gaze of a dozen or so of medical students, and is credited with saying, "I do not care what may be said of this instrument, I made sixteen thousand dollars last year by it." Happily the speculum furor is abating.——The Homœopathists are irate because one of their fraternity who had been appointed an examining surgeon for pensions, was removed as soon as his *status* became known at headquarters.——Queen

Victoria, like a sensible woman, discountenances the attempt of several of her "strong-minded" to don Æsculapian pantaloons, The short-haired women and long-haired men everywhere lament her position. Why don't they refer it to the "hereditary insanity" of her family?——Porter has been made Admiral (*per aspera*). but he can never be made *admirable* to our professional brethren in the naval service. It appears, however, that the vexed question of the "assimilated rank" is near settlement. The staff officers are to have what the women are after—their rights.——The publishers of a book, noticed in the JOURNAL of last month by our lively correspondent "Volta Reeke," positively adduce, in a public advertisement, the fact of such notice, without indicating its character, as an inducement to the public to purchase their book. We call the attention of the State's Attorney and the Grand Jury to their duty in the premises. The entire edition should be seized and destroyed, and the statute against obscene publications enforced against its getters up. It is time that these filthy emanations from the public press should be stopped. And yet a desperate effort is being made to introduce this worst "Satan in Society" to the center-tables of the very elect.——The Chicago Board of Health, we hear, have at last issued a volume of records of their doings and proposings.——Prof. Skoda, of Vienna, on account of failing health, has resigned the chair of Clinical Medicine.——Brown-Sequard has taken up his residence in Boston, leaving Paris on account of the war.——Helmbold-Buchu entertains the New York Press with splendid dinners, drives an unequaled tandem on Broadway (for which latter he is arrested and fined) and in return is put in the field as a candidate for the presidency by gentlemen whose appetites he has gratified by his viands, and whose smarting urethras, it is fair to suppose, he has appeased by his nostrums.——Dr. Zacheus Bass, upon whom an honorary degree was recently conferred by Rush Med. College, was a surgeon in the war of 1812, and has been in continuous successful private practice ever since. He resides in Middlebury, Vermont.——Efforts are being made to utilize the nutrient material abstracted from meat by the brine used in preserving it. Mr. Whitelaw, of Glasgow, by a process of dialysis, gets a pint of solid extract of meat from two gallons of brine.——Dr. George T. Elliott, Professor of Obstetrics in Bellevue Hospital Medical

College, died Jan. 29th. He had an attack of apoplexy in July last, from which he had apparently recovered. He was widely and favorably known by his contributions to the medical journals, his volume, "Obstetric Clinic," as well as by his connection with the College.——A monument to "Wm. T. G. S. Morton, Inventor and Revealer of Anæsthetic Inhalation—Before whom in all time Surgery was Agony—By whom pain in Surgery was averted and Annulled—Since whom Science has controlled Pain," has been erected at Mount Auburn, by a committee of the most eminent medical gentlemen in Boston. The committee also propose a national subscription for the family, who are left in straitened circumstances. These things are very "fit to be done." Unlike many epitaphs, this tells the truth fairly, honestly, and yet nobly. We trust the national subscription may prove a great success.—— Although chloral in large doses evidently tends to aggravate bronchial congestion, Dr. Caspar Morris commends it in asthmatic bronchitis. He gives five grains (every two hours p. r. n.) in Aubergier's Syrup of Lactucarium.——M. Chaufford (Societé Med. des Hopitaux) uses large doses of carbolic acid in the severe secondary fever of confluent small-pox. He gives one gramme (15.4 grs.) in four or five ounces of menstruum during the day. External lotions of the same are contemporaneously used. He asserts that this treatment causes rapid disappearance of the febrile phenomena of the symptoms of suppuration. Nothing is said with regard to the diet or use of other remedies. A full, nutritious diet with plentiful stimulus, in our experience, is absolutely essential. Possibly the carbolic acid may render other stimulus, save dietetic, unnecessary.——Rumor hath it that Prof. Henry H. Smith, of the University of Pennsylvania, occupant of the chair of surgery since 1855, is about to resign. His successor is not named. Is it "the great Christian Surgeon of the Northwest," (*Vide N. Y. Independent*), the "successor of Dr. Brainard," (*Vide* several other newspapers)? We should be exceedingly loth to lose *him*, but we will send his lithograph in "*The Arts*," with extreme pleasure.——A she-doctor of the infinitessimal persuasion, records a case of tubal pregnancy (*Medical Investigator*) which was cured by *Caul. Puls.* and *Gels. Caul.* predominant. Carbolic Acid and Hydrate of Chloral incidentally. *Puls.* was 6th, but *Caul.* was a grain to a goblet of water.

Loot.

Poisoning by Carbolic Acid.

The *Canada Med. Journal* reports a case from the Montreal General Hospital, where a patient manifested symptoms of the toxical effects of carbolic acid by external application. He had been suffering from acute eczema of the entire cutaneous surface for some five weeks. All applications having proved ineffectual, an ointment of carbolic acid and lard, one part to four, was applied to the arms and thighs. An hour and a half after the application, the patient was found apparently moribund. Prompt cleansing of the surface, and internal administration of stimulants, both by mouth and rectum, restored him. Five hours later free vomiting occurred, and the vomited matters gave off a strong odor of carbolic acid. Upon recovery, the patient stated that a few minutes after the application of the ointment he realized "a peculiar burning, pricking sensation over the whole body," accompanied by extreme vesical tenesmus, and then followed a state of perfect insensibility.

Intermittent Fever successfully treated by th Iodide of Potassium after Quinia had failed.

Dr. S. L. Abbott records (Boston Medical & Surgical Journal, Oct. 7, 1869), a case of this kind: A young man had had repeated attacks of intermittent fever. During his last attack "the chills had recurred daily, and the patient had suffered much from almost constant, deep-seated pains of a rheumatic character, mostly in the chest and arms, which were most severe in the latter part of the day and at night, sometimes seriously disturbing sleep. There was some tenderness on pressure over the spleen, but no enlargement of that organ could be felt. Appetite much impaired. ℞.—Potass. iodid., gr. v; Fl. ext. quassiæ, f℥ss before each meal.

"May 18. Patient reported that he commenced the use of the medicine on the 14th. On the evening of that day he had a severe chill, which lasted two hours, and was followed by fever and profuse sweating, as usual. On the 15th he had another attack, but much less severe. There had been no recurrence since. The appetite was improving; the bowels were regular, and the patient felt much better generally. Directed to continue the use of the medicine until the 21st, when the evening dose to be omitted.

"June 3. No chill since last report. Appetite said to be 'enormous,' 'better than for three years.' Patient says, 'the medicine killed the ague in just two days.' The pain in the bones ceased after the third day."

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—APRIL, 1871.—No. 4.

Original Communications.

ARTICLE I.—*Matter: Living and Dead.* By I. N. DANFORTH, M.D., Chicago.

The views of Prof. Beale, now so widely disseminated, are doubtless bearing excellent fruit, and producing excellent results; and yet I believe it is quite possible that some erroneous conclusions may be drawn from his published writings, if his language is always to be literally understood. In fact, if we always strictly construe his sentences, and take him at his word, we can scarcely help looking upon ourselves as more dead than alive; as fitter subjects for the charnel-house, than for the congregations of *living* men. The proposition that "nothing that lives is alive in every part"* is demonstrably true in the latitudinarian sense in which it was doubtless intended, but it is *as* demonstrably false, if subjected to the rigorous interpretation which we ordinarily bestow upon the language wherewith science speaks. The ultimate *living* particle, whether it be the whole, the half, or the thousandth part of a single cell, must, of very necessity, be *all* living; the ultimate particle of *dead* matter must, of precisely parallel

* "Life, Matter, and Mind," page 33.

necessity, be *all* dead. Thus we are driven, by the inexorable force of logic, supported by a multitudinous array of facts, to the same conclusion which Beale long ago announced; namely, that matter exists in two diametrically opposite conditions, *living* and *dead;* that every organism, whether the humble ameba, or man himself, consists of matter in these two states. Thus far, the most censorious critic can find no fault with Beale, provided always he be a believer in the existence of a vital power or principle. But, to my mind, the *tests* by which this author proposes to demonstrate the presence or absence of life, and the conclusions to which a rigid belief in the infallibility of these tests necessarily force me, are alike unwelcome and unsatisfactory, and it is my purpose, in the present article, to show *why* this is so.

Dr. Beale's method of distinguishing, as between living and dead matter, and the sweeping conclusions which he draws therefrom, may be briefly formulated as follows:

First: The cell, wherever found, consists essentially of two parts; germinal matter (otherwise called cell contents, nucleus, protoplasm, bioplasm, endoplast), and formed material (otherwise called cell wall, periplast, intercellular substance, or products of secretion). The former may be distinguished from the latter by its capability of being stained by an ammoniacal solution of carmine, whereas the latter remains unaffected by the presence of the staining material.

Secondly: Masses of germinal matter, which readily take the carmine stain, are found more or less abundant in all tissues; in cartilage, in muscle, in nerve tissue, and in fibrous tissue; and its proportion to the whole mass is determined by the age of the animal, or by the amount of pabulum accessible thereto.

Thirdly: Germinal matter alone possesses the power of multiplication, of absorbing and converting nutriment, of building up and repairing the tissues, and of spontaneous movement; *therefore*, only germinal matter is *living* matter.

Fourthly: All matter which may not be colored by carmine, which may not grow and multiply, and which does not possess the power of movement, is no longer *living* but *dead* matter.

Here then we have the tests by which we are to distinguish living from dead matter: namely, the presence or absence of the capability of being stained by carmine, and the presence or

absence of the power of multiplication and growth. Whether or not germinal or living matter may always and everywhere be stained by carmine, or whether or not it *never* stains by carmine, is a matter of utter indifference to us, only in so far as it enables us to distinguish between two kinds of matter. The mere fact that a certain part of the cell may be so colored does not of itself prove that it is either alive or dead. We may therefore dismiss this part of the subject with the remark that carmine furnishes us with a very convenient means of examining the different portions of the cell, and a probably reliable mode of distinguishing its living from its non-living elements; and with an equally convenient agent for the preparation of the solid tissues for microscopic study, although it is doubtless far less reliable as a test for the presence or absence of living matter in their substance.

Prof. Beale's second postulate demands a more extended consideration. No one who believes in vitality at all will dispute the statement that the power of self-multiplication and growth, together with the power of spontaneous movement, is satisfactory proof of the presence of life; no one will contend that the power of spontaneous movement or migration is absolutely necessary as a condition which must invariably accompany life. The real gist of the matter, then, lies in this question: is all matter necessarily dead which has not the power of increase or self-multiplication? To discuss this question at all satisfactorily it is necessary that we briefly recall the essential structure of the tissues. The solid structures, muscles, nerves, bones, ligaments, and cartilages—all the tissues of the body—are made up, in the adult, of minute masses of germinal or nuclear matter, and of larger masses of formed material or tissue proper. The former readily stains with carmine; is endowed with the power of converting pabulum into itself, and of converting itself into the latter; possesses, to a greater or less extent, the power of spontaneous movement, and sometimes of migration; and is, to all intents and purposes, indisputably *living* matter. The latter is essentially concerned in the execution of the duties for which it was created, or, as we usually and very correctly term it, *function;* it has no power to grow and increase itself of its own mere motion, even though it be abundantly supplied with the appropriate means of so doing; it does not readily become stained by carmine, and, when colored at all, the tint is pale and

imperfect, and is readily removed; it sometimes possesses the power of spontaneous movement of a certain kind, sometimes does not; it never migrates from point to point, but is absolutely helpless when detached from its proper location in the body. Is it therefore *dead?* According to Dr. Beale, the absence of these peculiar endowments is competent proof of death; and this is simply equivalent to saying that at least seven-eighths of a great proportion of the tissues, which go to make up the body of an adult, do not enter upon the performance of their proper functions until after they have ceased to live. Dr. Beale fortifies himself in his position by citing the changes which occur in the cells of ordinary mildew, and in those of epithelial structures; to which we reply that, in those particular instances, and in others of like nature, he is, without any doubt, correct; but the further conclusion that, *therefore*, *all* formed material is lifeless matter, is not warranted. For this sweeping conclusion condemns us inevitably to the very disagreeable necessity of walking by means of dead muscles, of employing our several senses by means of dead nerves, of breathing by means of dead lungs, and, in fact, of performing all our various functions through the agency of structures which have absolutely passed the boundary between life and death. The following quotations will show clearly enough that I am not misrepresenting this author, or extorting from his language a meaning which he did not intend. "I apply the term *germinal matter* only to that which *lives*, *changes*, *converts*, *germinates*, *etc.* *Formed material*, on the other hand, never possesses any of these properties. It *has lived*, but is now *lifeless;* it may *be* changed, but it cannot change itself."* Again he says, more pointedly still, "the terms *living* and *dead* have for me a meaning somewhat different from that commonly accepted. If my arguments are sound, the greater part of the body of an adult man or animal, at any moment, consists of matter to all intents and purposes as dead as it would be if the individual itself were deprived of life. The formed material of the living cell is dead. The only part of the living cell and the living organism which is alive, is the germinal matter. Nothing can be regarded as alive or living but germinal matter in which vital changes alone take place."† Surely if all this be true,

* "How to Work with the Microscope," page 318.

† Op. cit., page 328.

the most case-hardened stoic may appropriately pray for delivery from "the body of this death."

For my own part, I am prepared to admit, and do fully believe, first, that the epithelial structures generally, the outer layer of mucous and serous membranes, the epidermic layer of the skin, the hair and nails, and the fluid portions (or "formed material") of all secretions, of exudations and pus, consist of matter which is chiefly or wholly lifeless; more than that, I believe that in every truly living tissue, a considerable proportion of dead matter may always be found, by virtue of that retrograde metamorphosis which is the direct and inevitable result of use and wear, which is constantly going on from infancy to dotage, and which necessitates the provision of an extensive secretory apparatus for its immediate removal. Secondly, proceeding directly to the opposite extreme, we find matter (the so-called "germinal matter" or "bioplasm,") which is, in the highest sense, *living;* it inherently possesses the powers and properties already so frequently alluded to, namely, of growth, multiplication, and spontaneous movement. It is, without doubt, the ultimate repository of vital power—the absolute magazine of life. But between these two extremes; between matter absolutely dead on the one hand, and matter absolutely living, from Beale's standpoint, on the other hand, we find structures which belong neither to the one nor the other; structures which, deprived of some of the properties pertaining to the one, have not yet acquired some of the properties pertaining to the other; structures which, *wanting* the vital power necessary for *reproduction* and *growth*, *retain* so much of vital power as shall suffice for the performance of function; structures which, in passing over the boundary which separates germinal or growing matter from formed or "function-performing" material, carry with them just so much residual vital force as shall enable them efficiently and perfectly to perform their several functions, and maintain their own integrity while thus engaged.

Of this middle class, we may regard muscular tissue as the type, and I select it, because it is the most common, not because it is the only, type. It would be difficult for any man to convince himself, by any course of reasoning or experiment, that his muscles are composed, to the extent of forty-nine parts out of every fifty, of *dead* matter; and yet this is precisely what

Dr. Beale tells us. Lest the bare statement may not be deemed sufficient for those who have not access to his works, I quote his own words: "The contractile material of muscle may be shown to be continuous with the germinal matter, and oftentimes a thin filament of the transversely striated tissue may be detached with the oval mass of germinal matter still connected with it, showing that, as in tendon, the germinal matter passes uninterruptedly into the formed material. This contractile tissue is not, like the germinal matter which produced it, in a *living* state."*

Again, Prof. Beale divides the various movements which occur in living beings into two classes, as follows:

"I. Primary or Vital movements: affecting matter in the *living* state only, and occurring in every direction, as seen in the ameba, white blood corpuscle, and in germinal or living matter generally.

"II. Secondary movements, the *consequence* of vital movements, or of other phenomena, affecting matter which is *not* in a *living* state";† and in this latter class is placed ciliary movements, (as of ciliated epithelium,) muscular movements, (which he elsewhere calls a "physical" phenomenon,) molecular movements, and "movements of solid particles suspended in fluid in cells, caused by currents in the fluid." Quotations of similar import might be multiplied to an almost indefinite extent, from Prof. Beale's works, but these are sufficient for my present purpose. They show, conclusively enough, what, in the author's view, constitutes *death*, or dead matter; and, as a necessary corollary, that the various tissues only acquire their several *functional* powers after they have ceased to live. But, on page 311 of Prof. Beale's work on the Microscope, he gives a more formal statement of his views of the powers and properties of living matter, as follows:

1. The power of altering and appropriating certain soluble matters, and communicating to them properties or powers of the same nature as those which the living matter itself possesses.

2. The power of moving in all directions—the passage of one part of a living mass to another part, so that one portion may advance *itself* in front of another portion, or encircle another.

3. The power of causing the elements of matter to take up

* "Life, Matter and Mind," page 54.

† "How to Work with the Microscope," page 169.

definite relations towards one another, so that definite compounds, often exhibiting definite structures, may result, when the matter ceases to live.

4. The power of infinite increase.

Here, again, it will be observed that Prof. Beale carefully excludes several tissues upon which the various functions of the body fall, from the category of structures endowed with life.

If this doctrine be true, it must be regarded as an established fact, not only that we "die daily," but that we are constantly more dead than alive; that an exceedingly small proportion of the matter of which our several bodies is composed must necessarily be endowed with vital force sufficient to keep the other exceedingly large proportion in running order; in other words, that nature, reversing her ordinary laws, rules in this case by minorities. To what, then, is muscular contraction due? "To a 'disturbance' (electrical or otherwise) in the neighborhood of a contractile tissue," answers Dr. Beale. Why import the foreign element of "electrical disturbance," when the native element of vital force will answer, not only just as well, but a great deal better? Does nature ordinarily carry on her work by means of "disturbances, electrical or otherwise"? If the muscles which guide the pen with which these words are written are dead already, what change will they undergo at the moment when life shall altogether cease? He who accepts the theories of Beale must needs reply, "absolutely *no* change, except the death of their germinal matter." Then, surely, the same "disturbance" ought to produce the same result.

A careful consideration of this subject, will, I think, convince any one, save Dr. Beale himself, that the teachings of this most accomplished of microscopists are, on the point here discussed, essentially erroneous. No tissue can appropriately be called lifeless, while it is yet capable of performing its specific functions in that "living temple" whereof it forms a part. Dead as to the power of the conversion of pabulum; dead as to the power of reproduction; dead as to the power of traversing the field of the microscope by spontaneous movement of its component particles or of its entire mass, it indeed may be; but dead, in the ordinary sense of that fearful word, and in the sense in which it is constantly employed by Prof. Beale, it assuredly is *not*. Whether the life

which pervades and animates the tissues be called a "functional" life, or by some other name, it matters not; whether the powers they manifest be attributed to an "electrical disturbance," or to some other cause equally far-fetched and equally absurd, it matters not; whether theorists continue cudgeling their brains to find explanation for that which needs no explanation, it matters not; but one thing is certain—that the great mass of scientific and thinking men will continue to believe that *all* the tissues of their bodies are under the constant guidance of that old-fashioned but unerring vital force which has already withstood ruder attacks than that of the ingenious writer and laborious investigator whose doctrines are here considered, and to whom we all owe so much.

ARTICLE II.—*Report of Vivisections, Etc.* Performed by Prof. J. W. FREER, M.D., before the Alumni of Rush Medical College, Chicago. By F. L. WADSWORTH, M.D., Chicago.

At the close of the formal exercises of the Alumni meeting of Rush Medical College, Feb. 1st, 1871, the audience repaired to the upper lecture room of the college building, to witness an exposition of scientific vivisection, by Prof. J. W. Freer, M.D., Prof. of Physiology and Microscopic Anatomy.

It being the custom of Prof. Freer to fully illustrate his course of lectures on Physiology by vivisections, thereby exposing the *living organs* to view, and affording opportunity to observe and demonstrate the functions of various organs, there are continually under observation several animals upon which operations have been performed.

On this occasion the first animal exhibited by Prof. Freer, was one upon which a biliary fistula had been produced. An incision had been made at the median line of the abdomen, extending from the ensiform cartilage to the umbilicus, some three or four inches, exposing the lower border of the liver, duodenum, etc. The common duct had been occluded by a ligature, cutting off the flow of bile to the duodenum, the fundus of the gall bladder had been opened, and one end of a silver tube secured therein by lig-

atures; the other end, passing through the incision in the abdomen, delivered the bile outside the animal's body. The incision had closed perfectly around the tube, by granulations, holding it securely in its place.

At the date of the operation, Dec. 20th, 1870, the weight of the animal was 15 lbs. 7 oz. avoirdupois, and he ate, daily, an average of 4043 grains of meat. He recovered from the effects of the operation in five days, after which he ate, daily, an average of 4550 grains of meat, while the increase in amount of water drank was fully one hundred per cent. The bile discharged more or less freely from the tube continually; the maximum amount collected during periods of observation being six fluid drams in twelve hours.

At the date of the exhibition—forty-two days after the operation—although the animal's daily rations of meat had been increased by 507 grains, his weight had diminished to 11 lbs. 14 oz.—a loss of 3 lbs. 9 oz., one-quarter of his original weight. These data coincide fully with those obtained by Louget, Bidder and Schmidt, Schwann, Bloudlot and others under similar circumstances.

Observations showed that during the period named, subsequent to the operation, the animal was exceedingly sensitive to cold; that depression by cold diminished the flow of bile; that artificial warmth increased the flow of bile perceptibly; that water taken after fasting, and when the bile was scanty, speedily augmented the amount discharged.

Prof. Freer remarked, that, from these observations, it appeared that bile was not a purely excrementitious substance, but that it played a very important part in the process of digestion. It produces with fats a most perfect emulsion, in which condition the fatty portions of food are absorbed, and brought under the influence of vital force. The absence of bile in the alimentary canal results in rapid emaciation of the adipose tissue, and a great decline in the heat-producing capacities of the body.

The next animal exhibited was a large dog, weighing some 40 or 50 lbs., on which an operation for gastric fistula had been performed. An incision about three inches long had been made at the median line of the abdomen, exposing the anterior surface of the stomach, near the inferior border. The serous surface of

this organ was then brought in contact with the abdominal wall and secured by sutures to the lips of the incision, after which the wall of the stomach was pierced by a bistoury, and an opening made about one inch in length, corresponding in direction with the incision in the abdominal pariety. The canula, an instrument 2¼ inches in diameter, including flange, and 1½ inches long, was then inserted into this opening, readily, owing to the elasticity of the stomach tissues, which, after insertion, tightly grasped the body of the instrument, preventing hemorrhage and leakage of the stomach fluids into the peritoneal cavity. The incision in the abdominal wall was then carefully closed around the canula, which completed the operation.*

The size of the canula, (1¼ inch diameter of body,) allowed free inspection of the mucous surface of the stomach, which on this occasion poured out gastric juice freely when gently stimulated by the touch of a glass rod. Prof. Freer showed, by experiment, that gastric juice added to milk immediately precipitated the casein.

Next a black and tan terrier, weighing about 25 lbs., was put upon the table and anæsthetized with chloroform. The right common carotid artery and jugular vein were exposed. Into the former a glass canula was inserted and secured by a ligature, and into the latter the detached nozzle of the transfusion syringe was similarly adjusted. The blood of the animal was then allowed to flow from the artery into a vessel where it was defebrinated by whipping, and kept at 100° Fahrenheit, by means of a water bath. The bleeding continued until no more blood would flow, even with the animal's hind quarters raised far above the table upon upon which the head rested. Examination showed that all sensation was suspended, no pulsation of the heart could be felt, and there was only an occasional gasping respiration. Practically, the animal was dead, and would have remained so but for

* This operation is far preferable to the one recommended by Dalton, (Dalton's Treatise on Human Physiology, p. 120), in which the stomach is freely incised and secured to the canula by ligatures, from the fact that in Dalton's operation there is necessarily sloughing of the stomach tissues included in the ligatures, and subsequent exhausting leakage from the stomach, while in this operation there is no sloughing at all nor any considerable leakage. The animal exhibited, did not lose a day's rations of meat, nor a pound of flesh, as the result of the operation.

TRANSFUSION,

which technically consists in passing the blood of one animal into the veins of another—or, as in this case, the returning of blood to the veins of an animal from which it had been drawn.

This is most readily accomplished by means of a syringe, having a closely-fitting plain joint between body and nozzle, rendering detachment easy—the nozzle to be supplied with a stop-cock to prevent the entrance of air into the veins while the syringe is being filled.

The nozzle having been adjusted in the jugular vein, as before described, the transfusion was commenced; about one ounce per minute being the rate of injection. At about the fifth ounce injected, the animal commenced to wink and move his eyes, as though observing those around him; then, as the operation proceeded, to move his limbs, wag his tail, and give attention when spoken to. Sixteen ounces of blood were returned to the animal in this manner; immediately after which he raised his head voluntarily and looked around, and, with very little assistance, supported himself upon his haunches.

Subsequently to this, air was injected into the animal's veins, for the purpose of demonstrating its results. The first and second syringefull (half-ounce syringe used) produced no perceptible effect. The third and fourth produced irregular action of heart, disturbance in respiration, general convulsive movements of body, which, however, subsided in a few minutes, and the vital functions seemed to proceed regularly, although the animal was exhausted by the experiment. Some five or six syringefulls were then injected rapidly, when the heart ceased to act, a few convulsive efforts to breathe were made, and death ensued.

REMARKS CONCERNING TRANSFUSION.

While the animal was being prepared for transfusion, as heretofore described, Prof. Freer referred briefly to the history of the operation about to be performed. He said: The first successful experiments in transfusion were performed by Dr. Lower, of Oxford University, England, about the middle of the seventeenth century. It consisted of connecting the carotid artery of one animal to the jugular vein of another by means of a tube; and

whilst blood was thus transfused, he also permitted it to flow from time to time from a tube inserted into the upper portion of the jugular vein of the animal upon which transfusion was practiced, that as plethora ensued it might be reduced. Dr. Lower proposed to experiment to ascertain the effect of changing the blood of the old and young, the sick and healthy, and of the cold and warm-blooded animals, expecting that this exchange would alter the nature of the animals experimented upon.

Transfusion was first performed upon the human subject in 1667, by two Frenchmen, Dennis and Emeretz, who made use of the blood of a sheep. The basilic vein of the young man was connected with the carotid artery of the sheep, and the blood thus transfused. The man survived the operation. The next experiment of these gentlemen was upon an insane man, calf's blood being used. The experiment continued two days, and over a pound of blood was transfused. At first the man complained of suffocation, and the perspiration started from him freely. At the end of the experiment he became sane and was restored to his family. Another experiment upon a man of sound mind was also tried with sheep's blood, and succeeded admirably. The result was hailed with great enthusiasm. It was believed that these experiments had discovered, so far as health and youth were concerned, the "Philosopher's Stone," so much sought after; that an old man could be rendered young, and a sick man well, by transfusion. But unluckily the insane man returned to his old mental condition, and died during a second operation. Parliament then, by special act, put an end to further experiments of the kind. After an interval of a century, the study of transfusion was resumed by Harwood, of Cambridge, England, who insisted upon the fact that in transfusion of blood among animals of different species they generally died some days after the operation.

With Blundell, Prevost, and Dumas, the subject of transfusion entered upon a new phase. It is above all due to the works of these laborers and those who followed, such as Dieffenbach, Thos. Bischoff, Brown Sequard, and others, that this subject has attained such interest, in a double point of view, to therapeutics and physiology.

Prof. Freer urged the necessity of defibrinating the blood; 1st, as a precaution against accident, and 2d, because by so doing the

operation can be proceeded with without haste, and is, indeed, perfectly at the command of a skillful manipulator.

Prof. Freer then stated that transfusion had been performed twice on the human subject, once in this city, and once in Atlantic, Iowa, and requested Dr. W. C. Hunt to read the notes of the two cases, which were as follows, viz:

Case 1. Feb. 7, 1870. Drs. Hunt and Wadsworth, in compliance with a request by telegraph from Mr. G. P. S., of Atlantic, Iowa, went to that place to perform "transfusion" upon his daughter, 18 years of age, who was supposed to be rapidly sinking from a lack of nutrition, occasioned by the effects of a drachm of aqua ammonia, administered by mistake. This was believed by the parents to have produced so severe an inflammation of the stomach as to have "destroyed the mucous membrane."

Her previous history was as follows: Slight hereditary taint of scrofula on paternal side. Fifteen months prior to this date, she became somewhat anæmic; the menstrual flow was suspended, and she had gradually declined in health from that time. About two months since (in Dec., 1869) the ammonia was taken. This hastened her decline, and on or about the 25th of Jan., 1870, she contracted a severe cold, which compelled her to take to her bed.

At the time Drs. H. and W. saw her, her condition was excessively anæmic, with the muscular and adipose tissues much wasted.

Symptoms. Pulse very irregular, varying from 112 to 150 per minute, small, thready, and at times almost imperceptible at the wrist.

Respiration 22 per minute, imperfect and labored.

Severe lancinating pains, principally in the right lumbar and hypochondriac regions; countenance expressive of great suffering and anxiety.

There were some evidences of tubercle in the lungs, but the severe cold, under which she was laboring, masked them somewhat.

The patient seemed in such imminent danger of death that they hesitated to transfuse, fearing she would die under the operation, but, at the urgent solicitation of her parents, finally consented. Preparations were accordingly made, and the operation performed, as follows:

At 11 A. M., Feb. 8, anæsthetized patient and inserted a canula in the cephalic vein of left arm. At 11.45, drew from the arm of a brother of patient, vinous blood, which, when defibrinated, amounted to eleven ounces.

This was kept at a temperature of 100 deg. F., by means of a water bath.

At 12.45 P. M., patient having fully recovered from the anæsthesia—pulse 112 and irregular, respiration as before stated—commenced injecting blood. This was done very slowly. At 1.15 P. M. the eleven ounces had been thrown in. No unusual sensations nor pain were experienced by the patient until the 10th syringefull had been injected, when she voluntarily remarked that she "*felt better.*" From this time to the close of the operation she several times and in different ways expressed her great sense of relief from suffering and anxiety.

Pulse, at 1.15 P. M., 80 per minute, volume much increased and steadier. Respiration greatly improved, and she was much more quiet. The pain, before noted, continued, and the apparent improvement was not of long duration.

2.30 P. M. Pulse 100. The pain and restlessness continuing, at this time a hypodermic injection of morphia 1-4 gr., atropia 1-60 gr., was made.

In a few minutes, the pain being relieved, she sank into a profound sleep, which at 4.30 P. M. became comatose, and we became fearful that she would never be aroused. The lungs were filling, and the efforts of coughing were feeble and inefficient.

During the next hour, there being no change for the worse, we decided to inject more blood.

This time a sister of the patient furnished the blood—fourteen ounces (defibrinated.)

6.50 P. M. Pulse 132, irregular, feeble; respiration slow, imperfect; patient comatose. Commenced injecting. In 36 minutes had finished injecting the fourteen ounces.

7.26 P. M. Pulse 120. As much improved in every respect as in the previous operation. Respiration also better in every way, and patient apparently *sleeping quietly.*

At about 10 P. M., a recurrence of the sinking, such as she experienced a few hours before, occurred. Stimulants and nourishment were administered as before, and she gradually

revived and regained her consciousness, but suffered from a return of the pain before described. This lasted during the whole of the night, as local applications only were made to relieve them.

Feb. 9, 7 A. M. Patient sinking; expresses a desire to have the operation again performed.

Dr. Wadsworth having returned home, Dr. Hunt, with the assistance of the attending physician, Dr. ——, consented to do it. Another brother of the patient furnished the blood (thirteen ounces, defibrinated.)

8.14 A. M. Pulse 130; other conditions as before. Respiration also as before. Patient rapidly sinking. Commenced injecting. In 21 minutes had finished (13 oz.) Pulse had fallen to 120, and together with the respiration were improved as markedly as in the two operations. The pain in the side continued as before.

Shortly after this time Dr. H. returned home, and in a couple of days learned that the patient gradually sank, and died on the afternoon of the same day.

The second case was a patient of Dr. P. Matthei, of Chicago, Mrs. S., aged 30 years. In the spring of 1870, she miscarried at the seventh month. Profuse hemorrhage accompanied and followed this at frequent irregular intervals, until the anæmia became alarming. Symptoms of septicaunia supervened, and, as a last hope, "transfusion" was suggested, and on the 21st of May—nearly three months after the occurrence of the abortion—it was decided to "*transfuse.*" Accordingly, with the following conditions and results, Drs. Hunt and Matthei performed the operation.

General condition of patient as above stated. Special condition: Pulse 132 per minute, small, thready, and at times imperceptible at the wrist. Respiration 58 per minute, spasmodic, gasping, sighing. Temperature in the axilla and mouth 97 deg. F. No delirium.

Preparations being made as in case 1, at 4 P. M. commenced injecting. In half-an-hour had injected nine ounces, pulse had fallen to 123, and, together with respiration, was improved in every respect. Temperature 98.

Patient expressed and otherwise manifested a great sense of relief from the exhaustion and anxiety from which she had so long suffered.

The change was so marked that the attendants observed and commented upon it.

Still, death was yet apparently so imminent, that the result of a few hours was waited for, with the intention of repeating the operation, but during the following morning she sank, and died ten hours after the operation.

Almost beyond question her life was prolonged for nearly this space of time by the "*transfusion.*"

ARTICLE III.—*Criticism on a Recently Reported Case—Scarlatinal Sequela, treated with Veratum Viride.* By H. W. BOYCE, M.D., Geneva, Wis.

My attention has been called to "Cases in Practice," February number of CHICAGO MEDICAL JOURNAL, Art. 1, of which one, "Case 4," was under my care. The report of "Cases" to be worth anything to the profession, should set forth all the facts truthfully.

On reference to my books, I find that Ida G—— was attacked with *Scarlatina Anginosa*, on Nov. 24th, 1870. Nothing worthy of note occurred during the febrile attack. The fever declined, and desquamation of the cuticle commenced about the fifth day. Subsequently, while attending the father of Ida G——, my attention was called to a slight sub-cutaneous œdema, affecting the eye-lids and face of the little girl. Coincident with the dropsy, there was slight febrile movement, with a pallid countenance. As these symptoms pointed unmistakably to *renal* disease, the ordinary sequel of scarlatina, "acute desquamative nephritis," I prescribed saline cathartics, fomentations over the kidneys, and sudorifics.

But little attention was devoted to this patient, as these measures appeared to be producing a favorable effect and an abatement of the disease. Early on the morning of Dec. 12th, I was called to see Ida, the messenger stating that she was in a fit. I then learned that early in the evening of the night previous, she had been attacked with pain in the head, and vomiting, which had continued during the night. Before I reached the house, the

parents had placed her in a warm bath. She soon came out of the convulsions. I then directed the attendants to apply ice to the head, sinapisms to the feet and ankles, and fomentations over the kidneys, with warmth to the lower extremities. As the stomach had become too irritable to retain medicines, I directed them to give enemas of Sul. Magnesia, every hour, the bowels not having been moved during the night. I hoped that these measures would be sufficient to ward off the danger threatening my little patient, (uræmic poisoning). In this I was disappointed. The convulsions returned with increased violence, and of a decidedly epileptiform character. I then gave Calomel, grs. 15, hoping that this, with the enemas, would produce free evacuations of the bowels. In this I was not disappointed; towards evening there were frequent movements of greenish fœcal matter. This, with hot air baths, and the application of warmth to the lower extremities, finally checked the convulsions. The case was evidently complicated with uræmic poison. Hence the treatment, as far as practicable, must be directed to the elimination of urea from the blood. This was attempted by restoring the function of the kidneys, the skin, and gastro intestinal canal.

To fulfil these indications, I prescribed:

℞. Calomel, gr. xij; Nitrate Potass. ʒj; Pul. Digitalis, gr. iv. M. ft. ch. No. xij.

One to be given every two hours. Fomentations of Spts. Terebinth, to be applied over the kidneys, and to have water to drink freely, with sinapisms to feet and ankles. The head to be kept cool by cloths wrung out of cold water or ice.

This comprised the treatment, with occasional enemas during the night, and until Dr. B. O. Reynolds was called in. On consultation, it was thought best by Dr. R. to give inhalations of Sul. Ether and Fl. Ext. Valerian; to substitute Chlo. Potass. for Sul. Magnesia, in the enemas, and give Decoct. Fol. Buchu, and Bac. Juniper. I concurred. She was extremely restless, with slight convulsive movements of the limbs, which it was hoped the inhalations would allay. The Chlo. Potass. enema produced such irritation that it was abandoned after the first trial. But little of the Decoct. Buchu and Juniper could be taken. The Sul. Magnesia was substituted for Chlo. Potass., and continued until evening.

On the second consultation with Dr. R., it was concluded to

try the effect of Veratrum Viride, if an opportunity should occur, in place of the Sul. Ether and Tr. Valerian. As the Dr. was to spend the night with the patient, it was left with him to carry out the programme. No other alteration in the treatment was suggested. Early the next morning, the father of the patient called me up and said that the Dr. had given two doses of the medicine, (Veratrum) and thought it helped her; that he had gone home, and he wished me to see if any more should be given. I examined the patient, but failed to see any marked improvement. Pulse and respirations remained extremely rapid, and there was great restlessness. In truth, the case looked very unpromising. As the extremities were cool, I had the warmth re-applied, and concluded that if the Veratrum had been beneficial during the night, I would continue its use. Looking around for the vial I found it gone. Thinking that the Dr. had *inadvertently carried it home*, I went to his house (not more than half a block from the patient), called him up, and inquired for the vial of Veratrum. In conversation with him, the Dr. said that he had given two doses of five m. each, and thought it had a good effect, but was doubtful if more could be safely given. Procuring the vial I returned to the house and gave three drops, watching the pulse for its effect. I thought I could perceive a slight diminution in the number of beats, with less restlessness. During the day I gave the Veratrum in small doses in combination with Acet. Ammonia, whenever indicated by the restlessness. As the day advanced, the patient become more quiet, the urine increased in quantity, with frequent alvine evacuations. To these changes in the secretions, I attributed the favorable change in my patient. The Veratrum, as far as I could see, produced no other beneficial effect than that of a sedative and sudorific. If the patient took the Veratrum under his direction as stated in the JOURNAL, then she got rather more than a double dose, and I cannot help but be thankful, that we did not kill her outright.

Through the JOURNAL I first learned this fact, and consider it most extraordinary, as up to this I had supposed that the patient was under my care, and that I was responsible for her treatment as her regular medical attendant, and that the Dr. was advising me as to the treatment of the case. During the night, he had charge of her treatment, but with the morning I again took

charge of the case, and kept it until the patient was convalescent as I supposed.

With the elimination of the urea from the blood, the restoration of the renal function—the patient convalesced without any further complications from the disturbance of the renal functions.

REMARKS.

In the review of this case, I am impressed with the conviction that the Dr. made a mistake in the proper diagnosis. It was not I think, a pure case of uræmia *per se*, but that the uræmic poisoning was due to the defective elimination of urea by the kidneys, and that this was due to the diseased condition of the kidneys, familiar to practitioners, as the dropsical affection which is apt to occur as the sequel of scarlatina, and was the cause of its accumulation in the blood at this time. If this view of the case was correct, then a rational treatment would have to be directed to the use of such remedies as would aid the vital forces in eliminating this poison from the blood through the kidneys, the skin, and gastro intestinal canal, if the Dr. had not discovered a specific for uræmic poisoning in the use of Veratrum. This rendered other remedies unnecessary. Perhaps if I had bled this patient at the commencement of the convulsions, I should have saved myself much anxiety in the after treatment of the case.

What beneficial effect had the Veratrum if any, in this case? To me it was apparent that the benefit was derived from its sudorific property, and sedative effect upon the nervous system, thus economizing the vital force expended in the restless, spasmodic movements, without checking secretion. The mere fact of lessening the pulse by the use of Veratrum was of no importance, without at the same time eliminating urea from the blood, that being the cause of the unnatural action of the heart. As to the question, "Is it a poison?" it is too absurd to require comment. In conclusion, allow me to say, in general terms, that the vaunting of heroic remedies, as specifics and cure alls, savors of quackery, and is on a par with Prof. J. Walter Scott's cancer plant, and others of the same class. No application is intended.

ARTICLE IV.—*Pepsine and its Incompatibles.* By I. S. HAWLEY, M.D., Brooklyn, N. Y.

Dr. Thomas King Chambers, in his most excellent book on "The Indigestions," speaking of pepsine, says: "But I think that since its introduction to general use, through the ingenious preparation of Dr. Corvisart, it has caused more disappointment than satisfaction. This is because it has been given in unsuitable cases, and because impossible expectations have been founded upon it."

That any one at all acquainted with the physiology of digestion could misapprehend either the indications for the use of pepsine, or found any expectations upon its use, other than the assistance it gives to the digestion of albuminoid articles of food, thereby improving digestion and promoting nutrition, it is difficult to perceive. Yet, doubtless, Dr. Chambers' observation is correct, and a very large proportion of the failures in the administration of pepsine have been due to the causes mentioned by him. Yet there appear to be still other reasons why the use of even true and active medicinal pepsines are unvailing. This is most strikingly illustrated in a short extract from a letter to the Editor of the CHICAGO MEDICAL JOURNAL, which appears in the editorial department of the March number of that journal, under the head of "Chlorate of Potash in Diarrhea and Dysentery."

It is not the object of this communication to notice mixture No. 1, which contains ingredients well known to influence diarrhea and dysentery favorably, without attributing any curative effect to the chlorate of potash; but to call attention to mixture No. 2, which the author denominates "Pepsine Mixture."

Here neither of the errors, mentioned by Dr. Chambers, occur. The case is well chosen, that is, the digestive organs debilitated by diarrhea and dysentery; and the expectation is just, and in accordance with physiological law, "to strengthen and improve the digestive organs and aid digestion." But with a proper object, and a suitable agent for attaining that object, he fails through careless pharmacy, or, perhaps more correctly, disregard of the facts of physiological chemistry, in formulating his prescription. No physiological fact is better established than that alkalies

neutralize or destroy the active properties of pepsine. It is well known that the organic principle or ferment called pepsin, is entirely inert when separated from the acid secretion of the stomach, and, for the same reason, becomes inert if the acid be neutralized by the presence of an alkali.

"With the acid there is always present an albuminous matter, which is absolutely necessary to the solvent powers of the gastric juice, and which thence has been named pepsin. It is, in fact, gastric juice without its water and without its acid, and *therefore with its powers dormant, though undestroyed.*"

"It answers our purpose better to view the free acid and the ferment as separate parts of the gastric juice *dependent, indeed, on one another for powers of action*, but not for existence as substances."—Chambers on Digestion and its Derangements.

"The following facts are worthy of notice in reference to the *digestive power* of the gastric juice: it is *suspended* * * * by saturating the free acid with an alkali, or even with the phosphate of lime, by sulphurous, arsenious and tannic acids, * * * and it is *very much impeded by the addition of alkaline salts.*"—Lehman's Physiological Chemistry, vol. i., page 453.

So much for the combination of an alkali with pepsine with the intent to "strengthen and improve the digestive organs and aid digestion."

We next pass to the consideration of the remaining ingredient of the mixture—brandy.

Alcohol is not so much a neutralizer of the active properties of pepsine, as a precipitant of it from its solutions. No chemical law is better known than that chemical action cannot be produced between different substances except one or both be in a state of solution. Hence, if pepsine be precipitated from its solution by alcohol, it cannot act upon the solid contents of the stomach. It is asserted by some that fluids of any alcoholic strength are incompatible with pepsine, though I believe the lighter wines are capable of holding it in solution, and are therefore useful vehicles for its administration. Let us examine the alcoholic strength of this so called "pepsine mixture." Brandy of average quality, sold for medicinal purposes, contains from 48 to 50 per cent. of alcohol. This he dilutes with an equal portion of water, making the mixture contain from 24 to 25 per cent. Now the stronger

wines contain only about 10 per cent., and those most suitable for pepsine wine, even less. It therefore appears that had not the pepsine in this mixture been neutralized by an alkali, it would have been precipitated by alcohol and consequently become inert.

It has been thought proper to say thus much upon this subject in the hope to counteract the pernicious effect of a published formula, which is made up of incompatibles. Few things are more taking to a young practitioner than a ready-made formula, which is asserted to have acted successfully. It is sure to be copied and used.

Whatever good this mixture may have done, one thing is sure, the good was not due to its peptic action. Simple pepsine is fully competent to accomplish all the indications here set forth, and if administered simple and alone would doubtless have done so.

Before concluding, it may be well to say a word upon the general subject of administering alkalies in dyspepsia. It is certain they cannot assist digestion, and only serve to arrest an acid fermentation, which is the result of imperfect or prolonged digestion; an imperfection and delay which pepsine would effectually prevent and therefore obviate the necessity for the alkali. Furthermore, it has been clearly proved by recent experiments of M. M. Rabuleau and Constant, that alkalies diminish oxidation and vital force, and induce anemia.

These influences must therefore be doubly damaging where vitality has been lowered by indigestion and consequent innutrition.

ARTICLE V.—*Case of Fracture of the Anatomical Neck of the Humerus, and Recovery.* By EDWARD DUFFIELD, M.D., Hannibal, Mo.

On the morning of the third of September last (1870), the writer was summoned at 7 o'clock P. M., at the request of his friend Dr. Brittingham, to assist him, in the case of the Hon. Jno. B. H—m, an old gentleman, over 72 years of age, who had fallen and injured his shoulder, to an extent which the Dr., from the hasty examination made, was not prepared to determine. The

case presents several points of such decided interest, that we shall feel warranted in giving the details at length.

It would seem, that the Judge, being in ill health, and a very rest less sleeper, was in the habit of rising at night, to walk the floor and smoke. On this occasion he had risen about 2 o'clock A. M., and placing a chair, had mounted upon it, in order to light his hall lamp; the chair lurching, pitched him upon his left shoulder, and also striking his head with sufficient force to stun him. The family, alarmed, put him back upon his bed; and not discovering any blood, or evidence of serious injury, other than the shock, did not send for their medical adviser until his moaning about six o'clock A. M., made them uneasy lest he might be more hurt than they at first supposed. The Doctor came, and from the first impression rather supposed the bone dislocated at the shoulder, and urged my being sent for. The writer found him on his back, in a semi-unconscious state, answering, yet indistinctly, when spoken sharply to, with his right hand firmly grasping his left wrist, the elbow in almost natural position close to the body, the arm not altered in its length or proportions, with no diversion of its axis, the outline of the shoulder perfect, with neither swelling nor depression of the deltoid, or of the axillary walls, and the arm susceptible of the diverse motions, though painful when moved, and with the head of the humerus distinctly felt in the glenoid cavity; and the idea of dislocation was abandoned. Having fixed the head of the humerus with my left hand, and seizing his left wrist, and pushing it firmly against the socket, and rotating at the same moment, a distinct, clear crepitus was heard and could be repeated; holding it thus fixed at head and rotated, by separating the muscles with the fingers, a lack of coaptation was discoverable, but not so when the arm was released and placed as at first; and the diagnosis was made of fracture of the humerus at the anatomical neck, and at once coincided in by Dr. Brittingham. The age, and the peculiar previous condition, combined to render this a grave and but slightly hopeful case; indeed, with but faint prospect of having any future use of the arm, admitting that life was spared.

The patient had been in ill health for two or three years, though previously a man of stalwart frame and vigorous constitution. About ten months immediately preceding this hurt, he had been seized with an incomplete hemiplegia of his right side, not

entirely destroying voluntary motion, but seriously impairing his memory, and suspending wholly his power of articulation. Even after the entire recovery of the voluntary power of motion in his limbs, the memory and speech remained almost as bad as at first. We say almost, for there were times when the memory seemed to light up, and his power of expression would improve for a few days, but only to relapse. At the moment of the injury, whilst his memory was improving, yet his speech was at times almost indistinguishable—points to be noted for reasons given later. During these few months he was very anæmic; irritable, appetite poor, bowels torpid, tongue coated densely with a closely adherent dirty brown coating, secretions scant, and himself very feeble, with considerable bronchial irritation and some cough, as Drs. B. and D., his former advisers, informed me, the writer not seeing him. This peculiar combination, as remarked, did not serve to encourage us, but something had to be done. The arm had not yet swelled, and neither did it, or but triflingly, during the progress of the case. We cut and fitted a stout sole leather splint to the shoulder and along the whole length of the arm, moulding it easily, after soaking in warm water, padding with wool carded, (which we prefer, on account of more elasticity, to the cotton), over the projections of the elbow and wrist; and over this was applied firmly, yet carefully, a bandage, with the latter and the splint, so arranged at points as to apply arnica, camphor, etc., when needed. The arm was slightly flexed at the elbow and placed upon a pillow, and padded around lightly to support it; and careful watching enjoined upon his attendants to see that it was not moved, except when we were present to direct it.

For six days he lay in a semi-stupor; partially conscious when aroused and his attention fixed, but sleeping stertorously when left to himself. During this time he was given freely beef tea, rich milk, brandy, etc., and the carbonate of ammonia, under which, for the first time since his paralysis, his tongue cleaned, and under the use of it and bitter infusions, he became conscious, *memory aroused*, *speech clear*, appetite improved—and with these an inordinate craving for spirits and cigars. We forbade the latter, entirely, giving him brandy, only as it seemed required by circumstances. In our absence he would manage, through servants or others, to get his cigars, and after smoking he was invari-

ably betrayed, by the presence of hiccough, often prolonged to exhaustion. When he suffered from pain or sleeplessness, the hydrate of chloral in ten grain doses, seemed to exert a happy influence over him. As he rallied, we gave him iron and quinine, and a more liberal diet of beefsteak, game, mutton chops, soft eggs, fruit, etc. The family and friends remarked from the moment of his fully returned consciousness, the restored memory and improveds peech; he recalled incidents to them forgotten before his paralysis, and inclined to be very talkative and pleasant, as formerly.

It was but a short time from his resumption of speech, until the writer discovered that he was aphasic and called the attention of Dr. B. to it, in order to the ascertaining whether this was the case antecedent to the fracture or not, but the Doctor had not noticed, nor had his family—in fact, they had never thought of it until attention was called to it; and it was a matter of regret to me to be unable to decide whether his aphasia was the result of his fall, or previous paralysis. Certainly the fall seemed to awaken his dormant memory and to restore his suspended speech; we say suspended, so imperfect was it before. In arranging his business affairs, he recalled incidents, anterior to his paralysis, which even his lawyers had forgotten, and yet were essential to the management of his large estate; and indeed so accurate in minutest details was this restored memory, that when his agents would doubt or contradict, he would prove himself right by reference to the documentary evidence or living witnesses. Yet when speaking, his substitution of words for each other, or his forgetfulness of them entirely, would be noticed by himself, when he would laughingly say: "I know what I want to say, but can't hit the word"! The idea would be there, but often laughably mixed in expression. He would always speak of "his leg being broken at the shoulder," never calling it arm; and if reminded of it, in a moment would say leg for arm again. He would say "that his broken leg was sore, so that he could'nt move his hand"! He would ask his wife for "a —— to put the fire of his smoke in," meaning a waiter for the ashes of his cigar. And when any one was writing for him, and he would halt at a word, he would say, "you know what I mean," and on being told, would go on until brought to a halt again. He observed it

himself and would often laugh at it, saying, "my mind is all right, but the words quit me"!

The splint was kept on for seven weeks, and when removed we found, in spite of our care, two ulcers—one on the elbow, the other on the wrist; these, however, while somewhat tedious, healed kindly; and certainly no persons could be more surprised and gratified to find the fracture firmly knit, without deformity or lameness. Whether or not the union is bony, let others decide; we know that it is now perfectly solid and unyielding, and that the patient, though otherwise very feeble and infirm, has in all particulars excellent use of his arm; feeding himself, and lifting readily and securely with it—in fact, moves it in all directions, and it is unyielding at the former point of fracture.

We inclined to the opinion, then and now, that the line of fracture extended outside the capsular ligament; and how much influence, if any, was exerted by this in the healing, we are not prepared to affirm. When we recapitulate the circumstances, of the fracture of the anatomical neck in a paralytic of 72 years of age, anæmic and enfeebled, and consider the chances of securing any union, it seems as though hopeless, and certainly encourages us not to despair under the most adverse circumstances.

It may be asserted that we may have been mistaken in the fracture, or, at least, in its character. As to the first, we know we were not—it was too palpable; and as to the second, it may be possible, yet we think not, and we are supported in this by the peculiar diagnostic symptoms given. Had there been a lack of coaptation at rest, or a difficulty of preserving it at any time; or had the elbow hung away from the body when he was raised, and the arm left pendant; or had the shaft and head of the bone moved separately, and not synchronously, why we might possibly have divined a different fracture—that of the surgical neck, perhaps—but none of these things were found, or not enough, at least, united to alter our opinion.

It was the second case of fracture of the anatomical neck of the humerus we had ever seen, and presented several salient points of such decided interest to my own mind, that it seemed entirely possible it might interest others no less; and hence the space taken up in reporting it.

ARTICLE VI.—*Case of Transplantation of Skin at Cook County Hospital.* By E. POWELL, M.D., Attending Surgeon.

A. B., æt. 30, blacksmith, entered the Hospital January, 1871, for an old recurring ulcer of the leg, measuring two and a half by three inches.

Parts of its surface were deep, irregular and offensive. The patient was placed in bed, the limb elevated, and the ulcer dressed with weak solution of carbolic acid, under which it improved somewhat, but yet showed little or no disposition to heal.

It was soon determined to see what could be accomplished by the transplantation of skin upon the surface of the ulcer. Accordingly, four pieces of healthy epidermis of the size of a millet seed were removed from the inner aspect of the thigh, and inserted in a little cut made in the granulations, with the idea of giving the ulcer several points to heal from, and thereby hasten its closure; a dressing of adhesive plaster was applied. At the end of the fourth day there was nothing to be seen of transplanted skin, but on the eighth day two small isolated spots of something like cicatrization made their appearance at the points where the skin had been imbedded; this began to increase in diameter very rapidly, so much so that at the end of three weeks they were as large as a ten cent piece, appearing like islands in a sea of granulations; they were rapidly increasing in size, and two more pieces of skin were transplanted on the other portions of the ulcer. At the end of six days they were evidently commencing to send forth patches of cicatrization, which steadily progressed without interruption for nine weeks, when the ulcer was healed.

During this time there was very little effort at repair from the edges of the ulcer, the cicatrization extending almost altogether from the points of transplantation.

The only peculiarities of the cicatrix observed were its white color, and want of sensation to any foreign body.

The above brief history illustrates the points in two additional cases that were treated in the Hospital in the past six months in the same manner, with equally gratifying results, and it seems to me will work a new era in the treatment of extensive burns, by preventing the deformities which always follow such accidents.

One point is certainly plain, that the wound must heal over in a much shorter time, with much less suffering than usual, and without deformity consequent upon the contraction of the cicatrix which would otherwise follow.

ARTICLE VII.—*Opium in Metro-Peritonitis. Review of a Criticism.* By W. L. JOHNSON, M.D., Crawfordsville, Indiana.

An article in the February number of the *Chicago Med. Journal*, entitled Opium in Metro-Peritonitis, by Theodore Griffin, M.D., with comments by Walter Hay, one of the editors of the *Journal*, was read by me with some surprise; surprised that such a criticism should come from such a source.

The subscribers of the *Chicago Med. Journal*, are of the greater part former students of Rush Med. College, and the *Journal* is understood to be the organ of, and to reflect the principles and teachings of that institution. As I left that college but three years ago, its teachings and precepts are still fresh in my mind. Allen—although usually opposed to the heroic plan of treatment of disease—says, in giving opium or other anodynes, the object is to always relieve pain, and that excessive pain must always be relieved; the practitioner who does not accomplish this, does not his duty. Gunn says opium has no dose—in excessive pain there is no dose for opium. I am not positive as to his exact words, but his teachings are the same as Doctor Griffin's in his article—*let the indications be met in the treatment, howsoever large the dose of the drug may be.* I hold that this is the doctrine and practice of every member of the faculty of Rush Med. College. If there is an exception it should be made known, as it is a matter of no little importance. It is important to know what is good practice in the administration of opium—whether the practitioner is justified in giving three or four grains every half hour when there are excessive and lancinating pains; whether it is right to give five grains each hour for a day, or sometimes in extreme cases even to give tincture of opium in one dram doses every fifteen minutes until

pain is relieved. Let Prof. Allen answer to this point, for himself, for Prof. Miller, for Prof. Ingals, for Prof. Gunn, for all the faculty of his college. According to my understanding of the teachings and opinions of these gentlemen, they would justify Doctor Griffin in his treatment of the case reported.

A sentence, within the criticism enclosed in brackets, followed by an initial A, would lead the reader to suppose that Prof. Allen endorsed the whole criticism. But I am inclined to believe Prof. Allen did not carefully read the article and criticism. I consider the criticism extremely lame.

Let us, if you please, give this criticism a short review.

The article is "published as an illustration of the degree to which the human system can be educated into the frightful habit of opium eating." This same idea is enunciated in one of the four possible explanations given at the end of the criticism. "The woman was an opium eater already." The absurdity of this idea is proved by the fact that the woman was narcotized by the last six grains, after the pain had abated, when she had been taking such large doses for so long a time without any signs of opium poisoning, remembering at the same time that there was an interval of sleep just preceding the poisonous doses, so that the effect cannot be attributed to any of the drug taken while there was great pain. It was just as all of us were taught at Rush Med. College and as experience has shown us in practice since. Opium is an antidote of pain, and, *vice versa*, excessive pain requires excessive doses of opium.

Modern physiology surely does not teach that when the uterus and surrounding peritoneum are inflamed and the "bowels are constipated," "pulse 90 and bounding," that the use of opium is contra-indicated. Physiology does teach that inflammation of the parts mentioned can be controlled to some extent by the influence opium has on the nervous system, through the blood, be the bowels constipated or not. What has that portable privy, the rectum, to do with an inflamed uterus and peritoneum? A brisk purgation might be well to lessen the force of the circulation, but is of small importance compared with the influence to be obtained by large doses of opium. There are some quibbles as to words used and the author's style of expression, which properly lie between the author and his critic. Let us pass them.

There seems to me nothing strange in the report of the first day's attack, when the "symptoms yielded to a little mild treatment," or that there should be a relapse on the next day so severe as not to yield to large doses of opium. There might be a quibble raised as to the way the word *symptoms* is used, but that is a small affair.

The critic follows the phrase "no signs of opium poisoning" with a note of interrogation; and gives some quotations as if to prove that there was opium poisoning, or at least the use of opium contra-indicated.

"The nervous system much disturbed and agitated," as one quotation—this I hold to be the effect of the disease, and requiring an increased dose of the drug. "No urine passed for 11½ hours" —which proves nothing unless a partial paralysis of the bladder, which the opium would not aggravate but rather tend to relieve. "The mammary secretion gone"—this should not affect the general treatment.

And although at length the "nervous symptoms were better," "with some subsultus tendinum," yet the author is justified in maintaining his previously large doses; first, because there being subsultus tendinum proves the change for the better not great, and second, because after the continued use of opium for many hours, it requires larger doses, to get the same effect, than when first administered. It is a familiar rule in therapeutics—a continued use of opium requires an increase in the doses. Six grains an hour now, even with the symptoms a little better, have no more effect than four grains thirty hours ago, even with symptoms worse.

Notice, farther on, how severe the critic can be. "Was she better? More opium! Was she unchanged? More opium!! Was she still worse? still more opium!!!" A new exclamation point at each question and answer, and the way he has written it there does seem to be some mirabile dictu about it. But let us reverse these explosions of words and see how they sound. "Was she worse? more opium,"—well, why not? If it is the onward march of the disease and the lancinating pains are worse and the nervous system more disturbed and agitated, it surely would not be well to decrease a dose which had not acted too much or too well in its controlling influence. The veriest neophyte would say, in-

crease the dose—work carefully, but increase the dose. "Was she unchanged? increase the dose; more opium." To be sure, and for the same reason as when getting worse. "Was she better? more opium." If after the continuous use of this drug for 38 hours and symptoms are but slightly ameliorated, it is still necessary to keep up the increase of dose. Who says nay?

There is a criticism as to the delay in the use of the catheter. Sixteen hours is no great length of time for urine to remain in the bladder. It may have been too long a time in this case. He was the best judge who was there to see.

As to the "arrest of the renal secretion," mentioned at one time, it seems to be altogether an invention of the critic, as the author mentions nothing but retention of urine—no suppression. Suppression is attended with uremic poisoning—and there was none in this case.

It would seem that the editor has some spite or jealousy to work against this author by the way plain facts in this case are perverted and misstated. The criticism surely has not the foundation of good sound knowledge either theoretical or practical, not but the editor is learned, but in this case he has in some inexplicable manner been led astray.

When, at the suggestion of a professional friend, whose large experience entitled his opinions upon kindred subjects to respect, we entered our protest upon the pages of this JOURNAL, (Feb. No.) against the reckless use of a certain valuable remedial agent, we certainly had no expectation of seeing the necessity for the protest so speedily and fully demonstrated as in the above communication, which speaks for itself and needs no "Review." On our own behalf we shall refer to but one point in this *gentlemanly* communication, *i. e.*, to the charge of personal spite and malice; to which our defense is, that we were first made aware of the existence of the author, by the publication of the "Report" in question. In view of the thorough self-condemnation of the above, we publish it entire, in all its native elegance of style and diction, and courtesy of tone.

As to the impression which seems to rest upon the mind of our courteous correspondent, that the JOURNAL is the organ of the

Rush Medical College, it is, like some other of his impressions, a delusion, which not having created we are not responsible for. Concerning the teachings of the Professors of that Institution as a body, knowing nothing, we have nothing to say.

Professor Miller particularly desires that the misrepresentation of his views contained in the above, be corrected, assuring us that he had consistently and persistently warned his pupils against the pernicious theories thus falsely attributed to him; that he had authorized the use of opium only to allay pain and to retard the retrograde metamorphosis of tissue.

Prof. Gunn informs us that while he is quoted, with verbal accuracy, as refusing (of course) to specify doses of opium—he declines the paternity of such wholesale therapeutics.

Had our correspondent, by the assumption of a somewhat more courteous tone, entitled himself to courtesy in turn, we might have placed him in possession of further information concerning the "case" which would have enlightened even his understanding, but he must e'en bore his own hole through the mill-stone, or we fear he will never see the "other side."

We trust that no patient may die under the heroic system advocated above, lest the officiating executioner might perchance receive the baptism of Gratiano—of hemp, with twelve godfathers.

W. H.

Spontaneous Combustion.

Facts accumulating with reference to this subject seem to show that a much greater number of articles in common use may spontaneously ignite, than was formerly supposed. An instance of this kind has lately occurred in which oily iron chips, or borings from a gun factory, upon being carried out and exposed to the air, oxydized so rapidly that the oil, with which they were saturated, burst into a fierce flame. In general, it may be stated that it is dangerous to leave any material of a porous or spongy nature, saturated with oily matter, in a position where it can communicate fire to other combustible materials.—*Med. Jour.*

Selections.

On Mechanical Means of Relief in Certain Cases of Inflammatory Abdominal Effusions. By James Risdon Bennett, M.D.

In several recent numbers of the *Practitioner* reference has been made to the successful treatment of tympanitic distension of the belly by puncturing the intestines through the abdominal walls. Should further experience prove that this may be as safely done on the human body as we know it is in the case of animals, there can be no doubt that, in various forms of abdominal disease, great advantage may be derived from such a mode of relief to the distress and danger attending extreme distension of the belly from tympanitis. The intelligent practitioner will be able to judge how far puncturing the intestine may be admissible in any given case, just as he now does of the dangers attending the ordinary operation of paracentesis abdominis. But we must wait for further experience before any definite rules can be laid down regarding the circumstances in which we should be justified in having recourse to an operation manifestly not devoid of serious risk. In the meantime, every instance in which the operation has been resorted to deserves to be recorded. For this reason, therefore, I have thought that the interesting case I am about to detail might be a not unacceptable contribution to the *Practitioner*. It is certainly a remarkable example of the bold and successful employment of mechanical means of relief in one of the most common forms of abdominal disease falling under the care of the physician, and will, I am sure, be read with interest by every practical physician.

The war having broken out just as I was preparing to take my continental holiday, and so interfering with my projected route, I determined to visit Russia by the Baltic and return by Stockholm and Christiania. I thus had an opportunity, this year, of seeing something of the Northern hospitals, although, as a rule, I think it desirable to leave physic behind me and eschew hospitals and matters medical when on my holiday. There are, however, both in Russia and Scandinavia, things worthy of notice by British practitioners.

At Christiania I was introduced to Dr. Stabell, a most accomplished and able physician attached to the principal hospital of that place. Among other cases of unusual interest (including both the forms of Norwegian leprosy, the tubercular and the anæsthetic), he showed me the young man whose case I am about to describe, from the full and careful notes kindly furnished me by Dr. Stabell.

A medical student, aged 24, entered the Christiania Hospital, as a patient, on the 17th March, 1870. Twelve days previously he first felt unwell, having headache and loss of appetite. He was not, however, obliged to keep his bed, but even went out occasionally. Whilst out walking on the 13th March he was seized with a sudden pain in the hypogastrium, which became tender on pressure, and he thought somewhat swollen. He went to the theatre the same evening, but was obliged to leave in consequence of the pain becoming worse. The following day he went out again, and accidentally got a kick on the belly by which the pain was so much aggravated that he was obliged to take a carriage home and go to bed.

17*th.*—On admission to the ward of the hospital his condition was as follows: Loss of appetite, thirst, some sickness and vomiting, the latter having existed two days, together with diarrhœa. Yesterday he had seven fluid evacuations. Pain in the hypogastric region, not severe when quiet, but increased by motion or coughing. The whole abdomen tense and swollen, not very tender on pressure, except between the umbilicus and the left iliac crest, where there is extreme tenderness. Percussion dull from the umbilicus to the symphysis. Fluctuation not very distinct. Sound on percussion tympanitic from the sixth rib to the navel. Heart and liver normal in situation. Lungs apparently normal, but he has some cough and dyspnœa. He lost a brother from phthisis last year. Pulse 96. Temperature 37·8 centigrade. He was ordered tinct. thebaicæ and acid. hydrocyan. dil., āā m v. every two hours; a wet bandage to the abdomen, and hypodermic injection of morphia in the evening.

For some days his condition was much the same. On the 25th the dullness on percussion extended to five fingers' breadth above the navel. There were daily two or three loose motions, and the occasional passing of flatus gave him considerable relief. The pulse, however, fell to between 70 and 80. The temperature ranged between 37 and 38 centigrade, and the tongue was dry.

31*st.*—Eight leeches were applied to the abdomen, and an enema administered. The pain was for a short time relieved by the leeches, and still greater relief followed a copious action of the bowels from the enema. The pain and some tenesmus, however, soon returned, and he had sickness and bilious vomiting. Two morphia injections afforded very little relief. The upper part of the belly became greatly distended from tympanitis, and there was more prostration. He was ordered opii gr. ½ and calomel gr. 1 every two hours. An œsophageal tube was introduced into the rectum, through which some air and fluid motion passed.

April 3d.—The distension of the transverse colon had become very great, and there was more dyspnœa. An exploring trochar

was therefore introduced into the most prominent portion of the transverse colon, and a good deal of air evacuated with considerable relief. The following day, however, the distension was as great as before, and it was now determined to evacuate the fluid by tapping with an ordinary trochar. The abdomen was punctured midway between the umbilicus and the symphysis pubis, and four "potter" of yellowish semipuriform fluid removed (the Norwegian measure "pot" contains 1,000 c. c.). It was not attempted to remove the whole of the fluid, the trochar being withdrawn so soon as the fluid began to flow slowly. The size of the abdomen was considerably reduced, but the distension of the transverse colon remained the same. The following day the patient felt better, but complained of pain in the left leg, which had become œdematous. There was tenderness along the course of the large vessels and some tumefaction of the veins. Large water enemata were administered daily, which removed fæculent matter and a good deal of flatus. Some pain and soreness existing around the puncture, an ice-bag was applied. The following day he vomited occasionally, but the swelling of the leg somewhat subsided.

5*th.*—Temperature 38—37·1. Pulse 88. He continues the use of lukewarm water enemata.

8*th.*—Some return of appetite and more sleep. Tongue less dry; two to four semi-fluid motions a day.

15*th.*—Effusion extends to two fingers' breadth above the navel, and paracentesis was again performed, by which over two "potter" of thick pus were evacuated.

16*th.*—The percussion dulness extends from the symphysis to two fingers' breadth below the navel. ℞ Extracti cinchonæ, tinct. nucis vomicæ, āā ʒ j, aquæ fœniculi ʒ j, M: a teaspoonful to be taken three times a day. The effusion speedily accumulated again, and on the 25th he was tapped a third time, and $3\frac{3}{4}$ "potter" of somewhat offensive pus were withdrawn.

26*th.*—Pulse 72.

28*th.*—Pulse 72, temperature 36·6. Bowels act two to three times daily. Motions more solid.

May 4th.—Some œdema of the scrotum; this, however, on the 7th had nearly disappeared, but the feet and ankles were a little œdematous; percussion dull to the navel, but less towards the iliac fossæ, and towards the centre the abdomen is more prominent and resistent where the sense of fluctuation is distinct. On the 8th all medicine was omitted.

12*th.*—Abdomen again tapped, and $4\frac{1}{2}$ "potter" of offensive pus evacuated. A day or two after this he was ordered a tablespoonful of chalybeate cinchona wine three times a day.

16*th.*—Some strangury and a little pus in the urine.

20*th.*—Effusion again increasing up to the navel, with distinct

fluctuation in the iliac fossæ and a little hard infiltration in the abdominal wall, in the vicinity of the puncture. He, however, feels better; was up in a chair for two hours yesterday, and had one copious natural action of the bowels.

21*st.*—Tapped with a larger-sized trochar, and a "pot" and a half of pus evacuated. Through the canula of this large trochar, another double canula was introduced, and by means of an india-rubber tube and an elevated reservoir of water, the abdominal cavity was washed out with a weak solution of common salt in warm water, till the water from the abdomen ran away quite clear.

22*d.*—Passed a comfortable night after a morphia hypodermic injection. Bowels acted once naturally. The percussion note is now clear almost to the symphysis pubis. Urine clearer, and less frequent desire to pass water.

24*th.*—Has been up again.

27*th.*—Urine sedimentous, feebly alkaline, presenting, under the microscope, some pus-cells and vibriones. Some discharge, now and then, from the puncture, which remains open. A drainage tube was introduced into the abdomen, to the extent of five inches, and left in the orifice; and this he continued to wear.

June 23*d.*—Was out in the garden; still wears the drainage-tube in the abdomen. Urine continues alkaline, with a muco-purulent sediment. Appetite, aspect, and strength much improved.

July 17*th.*—Continued in much the same state, the discharge from the fistula varying in amount and character, the pus being sometimes offensive. The urine has maintained the same character. He has felt well and been out in the garden daily. Yesterday, however, he had a rigor followed by perspiration and headache, the temperature rising to 39·4. This morning he felt better, but at ten o'clock there was a recurrence of rigor with a temperature of 41. Pulse 134. The drainage-tube cannot be introduced beyond half an inch; but, after an exploration with a probe, the tube again passed in to the extent of three inches, when some offensive matter was discharged. Ten grains of quinine were given in the morning.

On the 19th July the temperature had again fallen to 36, and the pulse to 56. With the exception of the cystitis, which did not trouble him much, as there was no pain and scarcely any tenesmus, and for which he took first decoct. uvæ ursi and subsequently decoct. pareiræ, he was now pretty well again. On the 27th July, however, he had another severe rigor early in the morning, the temperature rising to 41° and the pulse to 140. He now left off all other medicine and began taking quinine. There being some tenderness around the fistulous opening, a wet bandage was applied.

July 28th.—He was again pretty well, the temperature having fallen to 36·6 and the pulse to 60, and the tenderness of the orifice had vanished.

Thus far I have given the history as kindly furnished me by Dr. Stabell. When I saw the patient in August he was sitting up in his room, looking pale and pulled down, as though he had had a severe illness, but he was cheerful and free from fever or any discomfort. His pulse was quiet and of fair strength, the tongue clean, the appetite good, and the bowels regular. The abdomen was soft and pliant, of natural form and size, and devoid of all tenderness on manipulation. He was still wearing the drainage tube, which he withdrew and replaced to show me the ease with which he could do so, and the depth of three to four inches to which it passed within the abdominal cavity. I could not detect any local hardness or swelling, and the abdomen had its natural, soft, elastic feel.

He left the hospital to go home on the 23d August, feeling in all respects well, but still wearing the tube, as there was still sufficient discharge to make it imprudent to allow the opening to close.

Before drawing any conclusions from this very interesting and instructive case for future therapeutic guidance, it is important to satisfy ourselves as to the real nature of the case. That there was a low form of peritoneal inflammation cannot admit of doubt; but was it, in the first instance, general peritonitis or localized in the lower pelvic region? And, subsequently, was the lower abdominal region shut off from the upper by adhesions? Thus did the saline injection wash out the whole abdominal cavity, or only a limited sac; and did the drainage-tube pass into the abdominal cavity, or only into such a sac? That at one time a very considerable amount of fluid existed in the abdomen cannot be doubted; and this evidently accumulated, in the first instance, in the lower belly. The tympanitic distension of the colon and the deranged state of the intestinal functions would seem to imply that the inflammatory action was not at first very limited. The slight degree of febrile disturbance and low temperature, except on the temporary occasions mentioned, may, perhaps, in the opinion of some persons, rather militate against the notion of general peritonitis. But it is not, I think, at all uncommon to find an almost entire absence of fever in the low forms of peritonitis seen in tubercular subjects.

But whatever view may be taken of the case, the treatment so successfully adopted appears deserving of commemoration and of careful consideration in cases of inflammatory effusions into the abdomen, attaining to such a degree, and lasting so long, as to threaten life. The patient in this case expressed to me the great

relief that he obtained by the evacuation of flatus from the colon, and believes that his life even was thus saved.

It is now pretty well established that many cases of empyema do best when a free permanent opening in the thoracic walls allows of continuous discharge of the purulent secretion. In some important respects the abdomen is more favorably circumstanced for such a procedure than the thorax. Nature herself adopts such a mode of relief, and I have seen cases of extensive tubercular peritonitis where life appeared to have been considerably prolonged by the drainage of the effusion through a spontaneous opening through the abdominal walls. I remember having had under my care, many years ago, a lad who was the subject eventually of universal peritoneal inflammation and adhesions. In the early stage of his illness he had symptoms of obstructed bowel and a tumor in the right groin distended under the impulse of coughing. For this he had been taken to one of our London hospitals, and was operated on for inguinal hernia From the opening thus made there was a continuous discharge for some time, with very considerable temporary improvement in his condition.

How far the washing out of the peritoneal cavity with the weak saline solution may have contributed to the favorable issue of the case detailed, it may be difficult to say. But it is a practice occasionally resorted to with advantage, I am told, after operations for ovariotomy.—*Anstie's Practitioner.*

On the Treatment of Typhoid Fever by Cold Water Baths. By J. H. Tyndale, M. D., House Surgeon to the German Hospital, N. Y.

Late researches have developed a method of cure, by the application of which we are enabled to reduce the rate of mortality among typhoid fever patients by from three to five per cent. This method is the treatment of typhoid fever by cold water baths, practiced in the last century, but lately revived by Brand, of Stettin, and since submitted to a scientific and practical test by a great number of physicians on the continent of Europe. The verdict in favor of this method of treatment of typhoid fever on rational principles has been universal, and attested by numerous and responsible clinical reports, comprising many thousands of cases.

The cold water treatment cannot prevent the natural course of typhoid fever. The natural phases, with their peculiar anatomical changes, will appear in an undiminished degree. Cases of

death from perforation of the bowel or hæmorrhage have not been diminished any more than if no treatment at all had been prescribed. The cases of death from these causes, however, has always been counted as an incomparably small fragment of the total mortality among typhoid fever patients. The principal source of danger for the patient is the *fever heat*, either directly or indirectly, and we are enabled to reduce this unnatural elevation of the temperature of the body, and thereby the degree of danger to the patient, by cold baths. The dangerous effect of fever heat in typhoid fever, as manifested by the so-called nervous manifestations: delirium, sleeplessness in the firsts tage, listlessness in the further course of the disease, depends entirely upon the continued unnatural temperature of the body. Death from these causes has never revealed any anatomical lesions. *Such symptoms will not manifest themselves if by timely, energetic, and oft-repeated withdrawal of warmth, a cooling off of the body is effected.* The patient remains sensible, and involuntary voiding of fæces and urine is of rare occurrence.

Not merely the psychical manifestations, but also the other functions of the nervous system, as well as muscular activity, are more or less impaired by fever heat. The paralyzing influence is shown by the feebleness of respiration, giving rise to the fatal collapse and inflammatory conditions of the lungs. The fever heat checks or limits excretion, interferes in this way with the functions of digestion, produces loss of appetite, and stops the supply of natural material necessary to supply the rapid waste of tissue.

All these sequels of the feverish overheating of the body are observed to manifest themselves in a lesser degree by the use of cold water baths. Thus, all competent observers are agreed upon the fact that the patient never loses his appetite; on the contrary, takes food during the whole course of the fever, so that extreme emaciation will not ensue, and the patient regains his strength in a shorter space of time from the period of convalescence. Bed sores, so frequent and unavoidable in typhoid fever, have been but rarely observed during the cold water treatment. In short, all secondary complications of typhoid fever have been totally excluded by this method of treatment, and the whole course of the disease has been completed in four weeks.

The general rules to be observed in administering cold water baths are the following:

1. The necessary reduction of temperature is best and most rapidly effected by immersing the whole body.
2. The water should be as cold as can be had.
3. The patient should be bathed as often as the temperature of his body, measured in the rectum, rise to 40° C. (about 104° Fahr.) Since the intensity of the manifestations of disease vary

much, it may occur that in one case one or two baths in the twenty-four hours will suffice, whereas, in another, as many as twelve or sixteen will be required in the same space of time.

4. The length of time for each bath must be governed on the one hand by the degree of fever heat, on the other by the temperature of the water used. On the whole it will be found that in a bath varying from 5° to 10° C., an immersion of from seven to ten minutes will suffice. Should the temperature of the water be above 10° C., the bath is to be continued for fifteen minutes, and if above 15° C., still longer.

No attention needs to be paid to the seeming discomfort of the patient, manifested by complaints, nor to the chill often occurring during the bath, and continuing for sometime afterward, as they are of no consequence.

5. After the bath, the patient should be carefully wiped dry (not rubbed), especially his feet and toes. If the water has been of very low temperature, the feet may be enveloped in warm cloths, as many patients complain of pain in the feet after a very cold bath.

Opinions differ as to whether it is best to immerse the patient in a cold bath (say of 10° C.) at once, or to have the water at a temperature more nearly the same as that of the body, and effect a gradual reduction by a slow addition of cold water. Niemeyer, who may be considered the best authority upon the subject, is in favor of a gradual reduction. With due deference to this opinion, however, I must say that repeated trials have satisfied me that by a sudden immersion in cold water two advantages are gained —1st, the reduction of temperature will be greater, more nearly approximating the normal temperature of the body; 2d, less time will be required, and consequently the patient will be less annoyed. In the cases under our observation we have found from one-half to two hours after sudden immersion the temperature reduced to 38.5° C. (normal), when before the bath it had been from 40° to 40.5° C.

When the temperature of the body has not been above 39.5° C., we have been in the habit of enveloping the patient in wet cold sheets for fifteen minutes. In other cases in which it was desirable to move the patient as little as possible, we have resorted to a sponge-bath of cold water and vinegar. Both methods produce a limited decrease of temperature, not exceeding one degree.

The antifebrile effect of cold water baths will be materially aided by large doses of quinine. From eight to ten grains of sulphate of quinine, administered every second evening, will surely obviate the necessity of frequent baths on the following day. Large doses, more frequently given, are apt to disagree, as also to lose their effect.

The *thermometer* is indispensable as an aid to the cold water treatment, as without it this method would lack the necessary safety in its application. The rectum is undoubtedly the best point of observation of the thermometer. In five minutes after the introduction of the bulb, the mercury will have reached its maximum height, and no disturbing influence can injure the correctness of observation, as is often the case in the introduction of the bulb into the axilla.

The severer the case, the oftener should thermometrical observations be made. In mild cases, in which even the evening temperature (always higher than the morning temperature) does not exceed 40° C., two or three observations may suffice; whereas, in severer ones, this should be done every two hours day and night, in order not to miss the right time for the repetition of the bath.—*St. Louis Medical and Surgical Journal.*

Editor's Book Table.

[Note.—All works reviewed in the columns of the Chicago Medical Journal may be found in the extensive stock of W. B. Keen & Cooke, whose catalogue of Medical Books will be sent to any address upon request.]

General Surgical Pathology and Therapeutics, in fifty lectures. A Text Book for Students and Physicians. By Dr. Theodor Billroth, Professor of Surgery in Vienna. Translated from the fourth German edition, with the special permission of the author, by Charles E. Hackley, A.M., M.D., Surgeon to the New York Eye and Ear Infirmary, Physician to the New York Hospital, Fellow of the New York Academy of Medicine, etc., etc. New York: D. Appleton and Company, 90, 92, and 94 Grand street. 1871.

The translator informs us in his preface that: "Most of the views found in these lectures have been floating through the journals for several years past; but, so far as the translator knows, they are not so fully presented in any book in the English language." This information was hardly necessary to those who will

be likely to purchase the book, nor was it necessary as a reason for the work which he has so well performed. In fact, the circumstance of the floating condition of certain ideas is but a poor reason for giving them book form. It needs but the authority of Virchow, for instance, to set any idea permanently afloat in periodical literature; the idea itself may be wild, visionary, and even foggy, but the parentage will secure the propagation upon the pages of the journals and the tongues of teachers, without the accompanying criticism, which would be, at least, wholesome. A glaring fault of the profession, both in this country and England, for the past few years, has been to accept, unchallenged, the dicta of a few German authors.

We commenced the perusal of Dr. Billroth's lectures with great expectations, and although profit as well as interest has attended our steps, we confess to disappointment, the reasons of which will appear as this article progresses. The scope of the book differs from Paget's Surgical Pathology in that the author enters largely into symptomatology and therapeutics, thus rendering it acceptable to a larger class of readers.

On the subject of suppuration, Dr. Billroth coincides with Cohnheim in deriving his supply of pus corpuscles from the colorless blood corpuscles. In fact, the white-blood corpuscle plays the principal part in most pathological changes, whether of construction or destruction. Proliferation, which five years since was so popular, finds little favor with our author. Virchow proliferated his pus from the nuclei of connective tissue, as though the nuclei were possessed of *creative* power, and could multiply *ad infinitum*, independently of blastema or formative material. Billroth equally ignores formative material, except so far as it is represented by the white corpuscle or *wandering cells*. The following sentence will express his idea as pertinently as any single sentence can:

"If there be no longer any doubt that all young cells that infiltrate the inflamed tissue, and sometimes, as we shall hereafter see, escape from it in the shape of pus, are white-blood corpuscles, or, briefly, *wandering cells*, we have two questions to answer, namely, *Why* do so many cells wander into inflamed tissue, and how came these numbers of wandering cells in the blood; where do they originate?"

It is not our intention, in this notice, to combat or uphold the

views of either Virchow or Billroth, but if suppuration is any process, it is, probably, a uniform process; it is not probable that suppuration is a radically varying process. If it is an "escape" of wandering cells in one instance, it is undoubtedly always the same process. But our author converts a blood clot into pus, also: "This blood clot may sometimes interfere with healing, as when, from its size or other causes, it decomposes or turns to pus." (p. 58.) He also converts tissue into pus: "The tissue surrounding the spot first diseased is gradually infiltrated with cells; and it also goes on to form fluid cellular tissue with the character of pus." (p. 368.) Suppuration is also, according to our author, a *healing* process. He says: "For instance, you unite a wound completely, and may sometimes observe that at some places there is healing by first intention, while at others, after removal of the sutures, the wound gaps, and subsequently heals by suppuration." (p. 92.) It can hardly be questioned that the healing process is here one of *granulation*, and that suppuration is merely incidental.

The process of separation of dead from living sutesis is thus described:

"A cell infiltration and formation of vessels, leading to the development of granulations, start from the borders of the new tissue; granulations form on the border of the healthy tissue, and their surface breaks down into pus. With this change to the fluid state as it were the solution and melting of the tissue, of course the cohesion of the parts must cease, and the dead shreds, which previously were in continuity with the living tissue by their filamentary connection, must now fall."

We confess we can hardly conceive of the *solution* and *melting* of tissue. Living tissue does not thus *melt*, and whoever has tested the strength and tenacity of the tissue of a slough, must be convinced that it has successfully withstood *melting* influences. The process of amputating dead tissue, which nature institutes, is purely a vital one; to wit, *ulceration* or *destructive absorption of tissue*. It takes place in the living territory just adjoining the border of the dead. Granulation and suppuration are incidental. Granulation, *i. e.*, the building up of new tissue, certainly cannot effect the desired solution of continuity. And as organized tissue cannot be changed to pus, suppuration will be equally inefficacious. But tissue may be absorbed, and thus a solution of continuity

effected. Such an absorption of *living* tissue just upon the borders of the dead territory effects the solution of continuity, by which a slough is cast off.

In *ulceration*, our author says:

"Two opposite processes are combined—new-formation and destruction; the latter results from liquefaction of the tissues, *i. e.*, through suppuration, or molecular disintegration, or both together." (p. 394.)

As *tissue* is not convertible into pus, suppuration cannot remove it; and molecular disintegration is *not* ulceration; it is merely minute mortification; in proof of which we quote our author, who says, in the same paragraph from which the last quotation is made, "Molecular disintegration and gangrene are but quantitative varieties of the same process, viz., the death of certain portions of tissue." Now the disconnection of these minute portions of dead tissue must be effected, and the process by which they are detached is the *real ulceration.* Examples of uncomplicated *ulceration*, *i. e.*, *destructive absorption of tissue*, are not wanting. Whoever has had opportunity for examination of diseased joints, must recall instances when a joint has been laid open which contained neither pus nor debris of any kind, but the cartilages of which were extensively *ulcerated*, *i. e.*, the cartilage tissue had disappeared in irregular patches; in other words, it had been the seat of *destructive absorption of tissue.*

In reference to the healing of nerves, Dr. Billroth says:

"In large superficial cicatrices, new nerves develop; when you have excised portions of skin and have brought together and united parts lying at a distance, new nerves grow through the cicatrix, and perfect power of conduction comes after a time, as may be often observed in plastic operations. These facts are very remarkable, and physiologically are still entirely inexplicable. Just think how wonderful that these nerve-filaments, sensory and motor, should find each other in the new adhesion, and that even, as we must suppose, the stumps of the primitive fibres should unite as they had been united, so that correct conduction and localization might result as they actually do!"

In the example cited there is only one kind of nerve function, viz., that of sensation; but in examples of reunion of divided

compound nerve-trunks, which in inferior animals and, perhaps, in rare instances, in man, are attended by a complete restoration of lost power, no such accurate adjustment of the divided ends is probably necessary. It is not probable that there is more than one kind of nerve current or influence; and no histological difference has been discovered in nerve filaments, whether they minister to motion, sensation, or special sense. Prof. Allen taught in his lectures, twenty years since, and at a later date in a series of papers published in the *Medical Independent*, that the effect of the nervous current varied with the mechanism at the end of the nerve. If a nerve terminated in a muscle, motion was the result; if in the peculiar mechanism of a gland, secretion. If a nerve originated in the external skin, its current conveyed to the sensorium common sensation; if it started from an organ of special sense, special sensation. There has never been any proof of an *intrinsic* variety of nervous currents, and histology has not detected a variety of conducting nervous filaments.

Dr. Billroth gives a series of diagrams illustrating the succeeding phases in an organizing blood clot, with reference to which he says:

"It appears that in the clotted blood there is a cellular infiltration, (wandering cells) which here leads to development of connective tissue; in short, that the thrombus becomes organized. The thrombus is not a permanent tissue, but gradually disappears again, or, at least, is reduced to a minimum, a fate which it shares with many new formations resulting from inflammation."

Such an organization of coagulated blood is by no means improbable, and the observations of Dr. Billroth will tend to clear up this mooted point.

In the classification of tumors, the grouping is determined entirely by histology. Practically, we consider this arrangement of adventitious growths not only the least satisfactory, but really the most perplexing one that has yet been adopted. The natural history and clinical peculiarities of surgical diseases afford salient and recognizable features, which not only stamp varieties, but are also associated with prognosis and treatment. Histology is an element to be studied as a constituent of their pathology, but until histology becomes an end, and not a means, it will never

serve a useful purpose as a basis of classification. Speaking of the course and progress of *sarcomata*, Dr. Billroth says:

"You see that the greatest benignity and greatest malignity may be united in this one group of neoplasia; indeed, I can assure you that two sarcomata of the most similar histological qualities (usually, however, with different consistence) may differ entirely in their course. From this circumstance the greatest objections have been made to pathological histology; it must be acknowledged that the histological structure of a tumor by no means corresponds to its clinical course; but for this reason to cast a slur on anatomy [histological anatomy, of course, he means] would be just as strange as to blame it because we cannot certainly distinguish between the microscopic preparations of a salivary, lachrymal, or mucous gland, although they play very different parts in the organism."

This would be very pertinent if anatomists made histology the basis of their description of the organs named. But histology is but a secondary matter to the descriptive anatomist. Classification serves the purpose of facilitating the description and study of tumors; to base classification on their histology, presents the subject to the student in as perplexing a form as would be the study of descriptive anatomy classified according to histological elements.

Billroth's Surgical Pathology will serve *us* a good purpose by using it as a reference in connection with Paget's; but we trust and believe that it will not soon supplant the latter work.

M. G.

Elements of Medical Chemistry. By B. Howard Rand, M.D., Professor of Chemistry in Jefferson Medical College. Second Edition, revised, with additions. Philadelphia: J. B. Lippincott & Co., 1871; pp. 420.

In this edition the text is thoroughly revised, an index added, as also a chapter on the clinical examination of the urine. We are pleased to see that the author has abstained from marring the general excellence of his convenient manual, by substitution of the proposed new nomenclature. He adheres to the nomenclature adopted in the U. S. Pharmacopœia. The constantly changing theories and hypotheses of dabblers in chemistry ought not to be allowed to upset a well established system, without better reasons than have yet been offered.

Regimen Sanitatis Salernitanum. Code of Health of the School of Salernum. Translated into English verse, with an Introduction, Notes and Appendix. By JOHN ORDRONAUX, LL.D., M.D., Professor of Medical Jurisprudence in the Law School of Columbia College, N. Y., etc., etc. Philadelphia: J. B. Lippincott & Co., 1871; pp. 167.

The original and translation are given on opposite pages, and it is unnecessary to say the work is well done. The author has laid the profession under obligations, by rendering this rare and interesting "code" accessible.

A limited edition (210 copies) was originally printed on extra large superfine tinted paper, for subscribers only. A few copies of that edition are still on hand, and can be obtained on application to the Publishers, at $5.00 a copy. We shall "scissor" some specimens when space permits.

The Journal of the Gynæcological Society of Boston: A monthly Journal, devoted to the advancement of the knowledge of the Diseases of Women. Edited by WINSLOW LEWIS, M.D., HORATIO R. STORER, M.D., GEORGE R. BIXBY, M.D. Vol. III, July to January, 1870. Boston: James Campbell, Publisher, 18 Tremont St., Museum Building; pp. 400.

We are gratified by a receipt of this volume elegantly bound in green and gold, for which the editors will please accept sincere thanks. "The Journal of the Gynæcological Society of Boston" is evidently thoroughly established, and has achieved the confidence of co-workers in the specialty to which it is devoted. In a literary way it wears the unmistakable marks of Bostonian "culture." Typographically, etc., it is unexceptionable, and even admirable. It is polemical to a degree—but that is an inherited peculiarity of its locality. Prof. Storer, who furnishes the principal motive power, is trenchant in attack, and potent in defence. He believes most fervently what he writes, and if we do not agree with him, in very many of his teachings, possibly the fault is our own.

The Society adopting as their motto, *Propter uterum est mulier*, religiously and logically carry out the implied dictum.

Those who desire to gain belief in that proposition, and acquaint themselves with all the modern methods of treating *the womb*, will find them expounded fully and forcibly in "The Journal of the Gynæcological Society of Boston," furnished to all advance paying subscribers at $5.00 per annum.

The Causation, Course and Treatment of Reflex Insanity in Women. By HORATIO ROBINSON STORER, M.D., LL.B., of Boston, Surgeon to St. Elizabeth's and St. Francis's Hospital for Women, etc., etc. *Sublata causa, tollitur effectus.* Boston: Lee & Shepard, Publishers. New York: Lee, Shepard & Dillingham, 1871; pp. 236.

This is a republication, in book form, of a paper which was communicated to the American Medical Association, at its session in Boston, in 1865, and was printed in its transactions for that year. It is republished at the present time, that it may appear simultaneously with a translation of a paper upon the relations of the female sexual organs, by Prof. Louis Mayer, of Berlin, which with notes by Prof. Storer, was commenced in the *Journal of the Gynæcological Society of Boston*, May, 1870. This essay, Dr. Storer remarks, "approaching the subject from a somewhat different standpoint, and in entire ignorance that he had been anticipated in the investigation by several years—affords unanswerable proof of the correctness of every point made in the following pages."

Modern Therapeutics: A Compendium of Recent Formulæ and Specific Therapeutical Directions. By GEO. H. NAPHEYS, A.M., M.D., one of the Editors of the Half Yearly Compendium of Medical Science, etc., etc. Second edition, revised and improved. Philadelphia: S. W. Butler, M.D., 115 South Seventh St., 1871; pp. 412.

The first edition of this work was noticed, at its appearance, in the *Journal.* It has been out of print for some months, all the issue having been sold in eight months. The author has performed the duty attempted in a very satisfactory manner, and has collated a mass of material not readily accessible to ordinary readers or busy practitioners. The facilities afforded by such

books in every day practice, weighs largely in their favor against their admitted tendency to foster a formularized routine practice.

A Hand Book of Legendary and Mythological Art. By CLARA ERSKINE CLEMENT, Author of "A Simple Story of the Orient," with Descriptive Illustrations. New York: Published by Hurd & Houghton, Cambridge Riverside Press. 1871; pp. 497.

A capital book for the foreign traveler, or the home student. It brings together in compact shape all the principal Christian legends and Pagan myths, with concise expositions of their illustrations in the art galleries and museums of Europe. Numerous wood-cuts are given, and the subjects being discussed alphabetically, reference to any desired topic is made easy. It is just what is needed as a companion to the usual handbooks of European travel.

American Association for the Cure of Inebriates. Proceedings of the first meeting, held at New York, Nov. 29th and 30th, 1870. Philadelphia, 1871.

The perusal of this little pamphlet cannot fail to afford to every philanthropist the most sincere satisfaction, in the evidence, presented therein, of the attention which the subject of intemperance is just now attracting in the scientific world. Nor is it less satisfactory to perceive the tendency toward organization, in the efforts to eradicate this terrible scourge of humanity, or, at least, to counteract its influence.

As in the individual, considered in his physical relations, so in society there appears to be a principle of compensation, by means of which reactions from extremes are effected, and social adjustments elaborated out of the very elements which constituted the sources of disturbance. An evil, at first trivial, fails to attract attention, till, increasing in magnitude, it begins to disturb the essential equilibrium of society, and, in so doing, awakens the dormant instinct of self-preservation, and thereby effects its own suppression.

The efforts now made to effect the suppression of intemperance, seem to suggest the arrival of such an epoch in the progress of humanity, and while we by no means anticipate the speedy accomplishment of so desirable an end, nor indeed its accomplishment at all, by the means now in operation, we trust that this incipient reformation may itself undergo such continuous reformations as shall ultimately give it the form of truth and efficiency.

Believing most firmly in the maxim "*ne sutor ultra crepidam*," we feel, that, as medical observers, we are excluded from the consideration of the subject, in its moral, social and religious bearings, and that, while we have a most fruitful field of research in the elucidation of the terrible effects of intemperance upon the human organism, and a most useful, though gigantic labor in devising means for their prevention or removal, the suppression of the evil itself lies beyond our province, and properly belongs to religion, by which only it can be comprehended in all its phases, and by whose influence alone it can be successfully combatted and thoroughly eradicated.

Considered then from a medical standpoint, as the only point of observation appropriate for occupation by this JOURNAL—the present phase of human society, at least in this country, presents many features peculiar to this epoch, and distinctly traceable to the influence of the various forms of intemperance; an influence which has undoubtedly induced in the human organism, considered as an individual, and in society as an aggregation of such individuals, modifications which, in their relations to the present and next succeeding generation, may be considered as permanent.

Much has been written about changes of type in disease, necessitating appropriate changes in its treatment; it is most reasonable to conclude that morbid influences, so far as they are specific and independent of causes external to themselves, have undergone no change at any time, but manifest varying symptoms through the medium of organizations which have sustained greater or less modifications through the operation of agencies among which intemperance must hold a most prominent place. As an illustration, the effects of intemperance, in inducing modifications of innervation, are prominently and painfully apparent to all who have devoted special attention to the pathology of this function; and in view of the constantly recurring instances of hereditary

transmission of morbid susceptibility to alcoholism, their permanency (as above qualified) must unfortunately be admitted. Moreover, even where the direct relation of parental intemperance is not, as in the illustration just cited, so clear and definite, the multitudes of instances of insanity, of imbecility, and other manifestations of perverted innervation in the offspring of intemperate parents, indicate, if they do not demonstrate, the efficient agency of this cause in their production.

A very large share of the responsibility for the increased and increasing extent of intemperance is attributed to the medical profession, and while we, to a limited extent, assent to the justice of the opinion, we do not admit the reasons assigned therefor. While it is doubtless true that some, perhaps many, have commenced a career of intemperance by doses of alcohol prescribed by a physician, this incident has been, in the majority of cases, a mere pretext for the indulgence of an appetite already craving gratification, and certain to seek it otherwise had this means been wanting.

We think the responsibility of the medical profession lies rather in their misapprehension of the true physiological and therapeutic relations of alcohol; let these be clearly defined, as they certainly are not now, and while we may not perhaps hope, thereby, to reform confirmed inebriates, (for seclusion is not reformation), we might, by the formation of correct impressions upon minds yet untainted by the curse, anticipate and thus prevent their destruction.

But, craving pardon of our readers for this long digression, we return to "the address of the President" embodying four propositions, to which we venture to suggest only the following objections: We think the admission, in the reply to the second proposition, viz., that "in small doses it (alcohol) acts as a mild stimulant and tonic," is a fallacy, which has always constituted one of the strongest of the tippler's arguments, in defense of his practices, and which will continue to be thus abused until a correct appreciation of the physiological relations of alcohol shall demonstrate its fallacious character.

This theory that alcohol is a stimulant cannot be sustained upon correct physiological principles, and although it has received the endorsement of time, it is not less false than many other pseudo-

scientific opinions, which have passed current, under the sanction of the same authority, until overthrown by more logical conclusions from broader premises.

That, under the influence of moderate doses of alcohol, the consciousness of exhaustion of the normal proportions of vital force in any organ or system of organs, is diminished or suspended, is undoubtedly true, as demonstrated by the experience of the whole human race; and yet the process, by which sensibility, whether mental or physical, is lessened, cannot properly be termed stimulation.

Nor is this theory less mischievous than fallacious. The human intelligence associates with the expression stimulation, the idea of increased power, and becoming conscious of loss of power in any function, naturally seeks some means for its restoration, and reasonably looks to those agents classified as stimulants for the supply of such means.

There are but two agents out of which force can be elaborated in the organism, viz., food, and sleep (*i. e.*, rest). Alcohol is not food, hence in this relation of the laws of force, it has little value. Impress the mind of man with the conviction, that alcohol can never in any sense increase power, but can only by lowering the energy (force in action) of the sensory function, the true indicator of disturbance of force, diminish sensibility to the loss of power already sustained, and thus add to the pre-existing depression—accomplish this, and a new and true principle will be established upon which to base a broader system of reform.

To the fourth proposition, setting forth that "the object of this meeting is to inquire into the best mode of treating inebriety," we object, that the second subdivision implicitly defines the investigation, and virtually terminates further inquiry.

Appreciating, at their highest value, the good intentions of the Association, whose organization is herein announced, it is with much regret that we see the reform movement taking its origin in principles which being narrow, partial, and fallacious, can only serve as foundations for delusive theories, whose practical application must result in disappointment.

The importance of the work to which the Association proposes to devote itself, the prominent position which it already occupies in the public view, and the eminence of some, at least, of its mem-

bers, would, we think, justify a careful revision of its "Declaration of Principles;" for we cannot believe that to be a "true method for the recovery of inebriates," which is based upon the assumption that "intemperance is a disease"—an assumption which no pathologist can prove, and every lexicographer contradicts.

Further, that, "its primary cause is a constitutional susceptibility to the alcoholic impression" we doubt, for we could designate, by name, individuals possessed of the most intense susceptibility to the influence of alcohol, who have always been models of temperance, and to whom this very susceptibility has proven a protection and a safe-guard against this "disease," rather than, as here asserted, "its primary cause."

To those uninitiated in the mysteries of the law, legal fictions have ever been a source of "wonder and doubt," but comprehensive as their scope may be, we trust that it will never be enlarged by the assertion of the principle embodied in the eighth proposition, viz., "That the law should recognize intemperance as a disease." The law is certainly in this instance wiser than the philanthropists, in designating intemperance as a vice, whatever may be the nature of its causes or results.

The writer of a "Brief paper on the pathological influences of alcohol, and the nature of inebriation," might have remembered the Horatian maxim, "*brevis esse laboro, obscurus fio*," with the advantage of clearing some of its obscurities; for after the fifteenth reading of the first paragraph of the fifteenth page, we are still in doubt, whether he endorses "fermented and distilled drinks" as "tonic, nutritive and life sustaining" when "properly used," or denounces the rest of mankind for doing so—more especially when, upon the next page, he refers to the "direct exhilarating effect of alcohol on the nervous system."

It would also have been interesting, had he explained on the twenty-second page, how alcohol "modifies the play of vital affinity in such a manner as to retard atomic and molecular changes," etc.

Another essayist places inebriates in the class described by Maudsley, as "weighted with a destiny, against which they have neither the will nor the power to contend"—with "primarily defective condition of body and mind, and an impaired will"—

who "know, but are impotent to perform," etc. All of which conditions we are led to believe are to be removed by temporary seclusion in an asylum. *Credat Judæus Apella, non ego.*

The Reverend author of the essay on the "Relation of the church to inebriates," states some plain truths, when he asserts that "a large proportion of our inebriates first began to drink, because their religious training had been overlooked, and there was no fear of God before their eyes from their youth up"—that "the church is letting go its hold upon the horny-handed sons and daughters of toil," having "no place provided where the victims of sin and shame, the ragged and battered and torn, can stand or bow down to worship God," and the "utter failure of the church to carry out the principles of pure religion and undefiled"—"to visit the fatherless and the widows in their affliction." In all of which we most heartily agree, more especially as he restricts his meaning to his own church, of which, speaking *ex cathedra*, he speaks only the truth.

Finally, in expressing our warmest sympathy with the Association in its legitimate career, we will venture to express the hope that it will temper zeal with discretion, and in its efforts for the reform of inebriates, will not exclude from the folds of its mantle of charity, those who are so unfortunate as to be sober and temperate, and above all things let it withhold its reforming hands from the law, and refrain from swelling the mass of special legislation now encumbering every statute-book—destined to prove unfailing sources of confusion and corruption. W. H.

PAMPHLETS RECEIVED.

The Ophthalmoscope in the Treatment of Epilepsy. By Reuben A. Vance, M.D., Attending Physician for Diseases of the Nervous System at the Out-door Department of Bellevue Hospital, etc., etc. New York: D. Appleton & Co., 1871.

Vick's Illustrated Catalogue and Floral Guide. 1871. James Vick, Rochester, N. Y.; pp. 96. Profusely illustrated.

Annual Report of the Board of Health to the General Assembly of Louisiana. Dec. 31st, 1870; session 1871. New Orleans: John W. Madden, printer, 73 Camp street; pp. 83.

On Dactylitis Syphilitica, with Observations on Syphilitic Lesions of the Joints. By R. W. Taylor, M.D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases. New York: F. W. Christern, publisher, 1871; pp. 30.

Report on Otology. By Samuel J. Jones, A.M., M.D., Lecturer on Ophthalmology and Otology, etc., etc. Read before the Twentieth Anniversary Meeting of the Illinois State Med. Soc.; pp. 14.

Woman as a Physician. By J. P. Chesney, M.D., New Market, Missouri. From the author; pp. 15.

Health and Home. A Monthly Magazine Devoted to Health and the Home Circle. W. R. DePuy & Brother, publishers, 805 Broadway, New York; $1.50 per annum; Vol. 1, No. 1; pp. 32.

The Health and Wealth of the City of Wheeling; also General Remarks on the Natural Resources of West Virginia. By James E. Reeves, M.D., City Health Officer, and Author of a Practical Treatise on Enteric or Typhoid Fever. Second edition, enlarged and illustrated; price 60c.; pp. 158.

Archives of Science and Transactions of the Orleans Co. Soc. of Natural Science. Jan. 1871. Published quarterly by J. M. Crurier, M.D., Newport, Orleans Co., Vermont.

The Georgia Medical Companion. A Monthly Adviser, devoted to the Science of Medicine and Surgery. Edited by T. S. Powell, M.D., and W. T. Goldsmith, M.D. *Quicquid Præcipies Esto Brevis.* Atlanta, Georgia: J. J. Toon, publisher; $2 a year.

Editorial.

The Uses of a Devil.

It has always been a puzzling question to persons of a speculative, theological turn of mind, why an All-wise and Benevolent Supreme Being should have permitted the existence of evil in itself, or of the great spirit of evil—the Devil, who is about universally believed to be its prime instigator. It would be so easy to be good, if there were no Devil to tempt otherwise!

But profounder reflection convinces that, for the right and perfect development of human nature, the evil principle is indispensable. Negative goodness has no virtue in it respectable above the positively bad.

Milton, in the *Areopagitica*, puts it thus : "I can not praise a fugitive and cloistered virtue unexercised and unbreathed, that never sallies out and sees her adversary but slinks out of the race, where that immortal virtue is to be run for not without dust and heat. * * * That virtue which is but a youngling in the contemplation of evil, and knows not the utmost that vice promises to her followers, and rejects it, is but a blank virtue, not a pure; her whiteness is but an excremental whiteness."

Hence, in the grand scheme of Providence, a Devil has an essential part, and has his uses. Adam and Eve before "the fall" must have been little above Huxley's Protoplasm in deserving. The Devil brought the fall, that brought both toil—"Brain-sweat and Brow-sweat"—and that mental and moral development which lifts man to his real place, "a little lower than the angels," but a good way above the Devil. "There is a soul of goodness in things evil." "Partial ill is universal good." There is an element of truth even in a lie, for it suggests its opposite; the lighthouse shows what to avoid, as the old time "Pillar of Fire" showed the path to be followed.

Which train of reflection leads us directly to medicine, formerly a part of theology practically. Indeed, even now, when divorced, (like the severed halves, male and female, of ancient philosophy,

that went wandering up and down the earth seeking their mates, *sometimes* finding the right ones, but, alas, too often the wrong ones,) medicine and theology have striking affinities—Doctors are polemical, and priests dabble in physic. Medicine, like theology, has its evil principle, or, rather, its "Legion." Without these, it is questionable whether its highest development or perfection could be secured. Bacon called them "Idols"—effigies, images, representations, emblems, of evil spirits, "hot from Tartarus." Let us call them the *Legion* not yet wholly cast out from the collective medicine-man. Some of them are:

Bald Empiricism, which believes in the *post hoc, ergo propter hoc*, and catalogues its remedies and its cures. *Figurative* truths, established not by the Tables of the *Law*, but by the multiplication table.

Sheer Dogmatism, which assumes that the truths of life, health, disease and remedy can be cabinned, cribbed and confined in some wretched catchwords like Hahnemann's sibilant syllables.

False Philosophy, that fastens upon half a dozen palpable facts (misinterpreted), a hundred more assumed (but baseless), and then babbles of simplicity and natural law, as if the grand secrets of nature had already been distilled from its pitiful alembics, or dug out by its dull scalpels. The experimental chemists and physiologists give us enough of this, not to speak of the microscopists and metaphysicians. The hewers of wood and drawers of water for the science of medicine, have each of them their "ready method" with the universe.

Rank Absurdity, that receives *omne ignotum pro magnifico*, that revels in marvelous cures and magical appliances; puts buckeyes in the breeches pockets to cure piles; makes "passes" for neuralgia; titillates megrims, hyp. and hysteria with pellets and potencies; or rises to the level of the sublime by grand "perturbations," with "heroic" doses of calomel, opium, veratrum, *et id omne genus;* or goes to the depth of bathos with wet sheets and ice water, or blood-letting and hot water, with Death himself checking "retrograde metamorphosis" and facilitating "elimination" by his co-operative fingers.

A few specimens only of the Legion, yet a catalogue too grim to laugh at, too ridiculous to grow lugubrious over.

We confess to the firmest faith and strongest confidence in medicine, both as a science and an art, nevertheless the most painful conviction is forced upon us, that the greatest obstacle to its progress is found, not so much in the operations and attacks of the *outside* medical sectaries, as in the constant neglect of so large a proportion *within* the profession, of the primary and fundamental teachings which they claim to accept.

The best of us are, too often, the dupes of philosophical inconsistency. From Huxley, with his splendid vaporings, down to the humblest correspondent of the medical press, there is all the time a manifest anxiety to escape, in the discussion of medical topics, the trammels of cool scientific method, and to substitute the scintillations of genius and imagination for the solid deductions of close observation and logical thought. The medical sectaries and the specialists, each with their little bundle of truths and vast piles of fiction, illustrate the uses of the Devil, and there is no advantage in fretting or fuming over their absurdities. Some show what nature can do unassisted, and others how much the human system can endure and yet escape with life.

Travelers in the tropics learn from the monkeys what unknown fruits they may eat with impunity, and the cautious stranger watches the bibulous customers of an Indiana bar, before he ventures upon the "sudden-death" or "forty-rod" dispensed from its decanters.

Each new method, and new medicine, may be judiciously left to the wholesale use of its enthusiastic advocates, whilst thoughtful physicians from its "morbid anatomy" may gather clearer ideas. Let the believers in specifics indulge in their most dangerous experimentation, they will lessen the necessity for Malthusian methods of keeping down the excess of population.

The search for the Philosopher's Stone and the Elixir of Life, brought to light abundance of useful truth.

The rise, progress, culmination, decline and fall of individual methods and "systems" may entitle medicine to be called a "History of Variations," as Sir William Hamilton objected, but even in its variations it has "a philosophy teaching by examples," whereby profit will accrue to the judicious thinker.

In theology, the day of marvels and miracles, nay even of

"Special Providences," has confessedly passed—although the spirit of evil is still unchained.

In medicine, there is analogous change, but the millenium has not yet dawned—its devil of False Philosophy is still loose.

An Organ-ic Error—

That this *Journal* is the "organ" of Rush Med. College, or of any other college, society, clique or individual. We ask our correspondent on another page, to take notice. The *Journal* is the "organ" of the medical profession as a whole. All opinions can be freely expressed on its pages, provided those who entertain them do so intelligently, and cheerfully submit them to the wholesome criticism which Medicine in its present high stage of enlightenment everywhere demands. We repeat, what we have elsewhere written, we insist upon *good faith.* When we believe this to be present, we shall admit a well written article though we differ, personally, *toto cælo* from the conclusions of its author.

The present writer is, perhaps from long experience, somewhat unusually pachydermatous, nevertheless he never could understand why some people are so particularly sensitive when their pet notions are attacked. They ought rather to rejoice at the opportunity afforded to show their tenets sound, their positions invincible, or else to discard the former and scramble down from the latter. Beware of thin skins, Dear Brethren.

It is a pitiful pride which plumes itself on holding precisely the same views now as twenty years, or one year, or even a day ago. Are we to learn nothing, to achieve nothing, to throw away nothing, or forget nothing ? Better be put away in salt and carbolic acid pickle at once. The Icthyosaurus is a good type of stability, but it is time enough to fossilize when dead.

Carrion Flies.

The severe *critique* which appeared in the *Journal* upon a recently published obscene book, (the naked villainy of which was even more apparent from the odd ends stolen from holy writ,

that, here and there, bedizened it,) has awakened the intense wrath of the noisome insects who sat down to batten on its reeking rottenness. They fill their little circles of foul air with epithets and threatenings. Meanwhile every respectable Medical Journal in the country, which has noticed it at all, has denounced it in terms to the full as energetic as those used by "*Volta Reeke*" or the Editor himself. That old and respectable paper, the *Boston Medical and Surgical Journal*, refused even to mention the name of the book in its pages, but after quoting from our correspondent and endorsing his views completely, says: "Our brother editor, in his remarks, truly stigmatizes the book as 'the culminating atrocity of the press.' Having made these remarks, *our* copy of the book goes to the flames." And yet prurient parsons in this city, to our knowledge, have put copies of the book into the hands of pure minded ladies, and howl, like baffled wolves, because we have exposed its disgusting enormities. We denounce the clergyman who does this from this time forth as a moral leper, and advise the lady to whom it is recommended, to imitate the editor of the *Boston Journal*, and consign the book to the flames, and the presentor to—Coventry, or a warmer climate.

Bliss & Sharp — Removal.

The well-known firm, Bliss & Sharp, recently of 144 Lake St., have removed to the spacious and elegant store, 105 State St., in the magnificent block adjoining "Booksellers' Row," wherein our Publishers find lodgement for their immense stock of literary and stationery wares. Calling upon them a few days since we found ourselves surrounded by everything needed or desired by the most devoted admirer of drugs, and every convenience for dispensing, sale or show of the Materia Medica, together with all those æsthetic appurtenances which our apothecaries know well how to dispose so as to attract the eye and gratify the sense. Those in the habit of visiting their old but popular store, will be pleased to learn that the department for surgical instruments, and apparatus of all sorts, has been assigned a distinct room on the second floor, reached by a broad and easy stairway from the central portion of the main apartment. In this department can

be found about everything, in the way of mechanical appliances, the Physician, Surgeon, Obstetrician or Specialist of any variety may need.

Those who may not wish to purchase will nevertheless be gainers by looking over the immense variety here presented. They will see, in a *coup d'œil*, the wonderful progress which has been made, within a comparatively recent period, in the creation of material aids to the profession. We advise our readers to look over this magazine, and thus secure many valuable hints for the future.

The same enterprising firm have also removed their branch store, 125, 22d St., to the beautiful building on the corner of the same street and Wabash Avenue. The branch store, although by no means as large as the palatial "down town" place, is, nevertheless, a *bijou* in its way, and did space permit would have a more extended notice. It is unnecessary for us to say that with Messrs. Bliss & Sharp purity and perfection of medicines is a cardinal and ever present virtue. As a class, Chicago may well feel pride in many of its apothecaries, and point to this house as especially distinguished.

Thanks to Contemporaries

Are due and cheerfully tendered for copies of missing back numbers of their respective journals. We shall always be happy to reciprocate to any extent in our power. We prize the Medical Journals of the time very highly, and not only file them, but have them bound, and their important articles minuted in a general Library Index.

Back Numbers Wanted.

To complete files, Twenty-five cents each will be paid for the following Nos. of the JOURNAL for 1869: June, 1, No. 11; July 15, No. 14; August 1, No. 15; August 15, No. 16.

To the Editor of the Chicago Medical Journal:

Cook County Hospital was lately the scene of a pleasant gathering, the occasion being the annual reunion of Interns. Four years have passed since the first certificate of the Medical Board was granted. Dr. N. T. Quales, the present Superintendent of the United States Marine Hospital in Chicago, was the recipient. Others have been added to the list of foster children at the rate of three each year. The young men so distinguished have done credit to their alma mater. Some of them have already achieved a fair position in the practice they have chosen. They all cherish the memories of an arduous service, and love with apostolic fervor their companionships therein. They will strive to ennoble the career of the Hospital.

It was for the purpose of perpetuating friendship and self-improvement that the Association was formed one year ago, Dr. Quales acting as the first President, and Dr. T. M. Hutchinson, Secretary. The reunion this year was a success, and will be long remembered. A bountiful supper was provided by the Warden, of whose hospitality all had tasted before. Other exercises of a scientific interest followed. At a late hour the assembly dispersed, to meet again in one year.

C. T. Fenn.

March 20, 1871.

Alumni of the Med. Dept. of the University of the City of New York.

The Executive Committee of the Alumni Association of the Medical Department of the University of the City of New York purpose the publication, at the earliest possible date, of a complete catalogue of the graduates from that institution since its foundation. The records of the Faculty having been destroyed in the burning of the college building some years ago, this project is one that should be seconded by every one of the alumni, of whom between two and three thousand are scattered throughout the United States. It is earnestly requested that each of these will, without delay, forward for enrolment his full name and post office address, with his

professional history, including date of graduation, posts of honor and trust held, etc., and also any information which he may possess concerning former class-mates who have since died or retired from practice. Communications should be addressed to the Secretary, Chas. Inslee Pardee, M.D., 72 West 35th street, New York.

American Medical Association,

Office of Permanent Secretary, Wm. B. Atkinson, M.D., 1400 Pine street, S. W. cor. Broad, Philadelphia.

The twenty-second annual session will be held in San Francisco, Cal., May 2, 1871, at 11 A. M.

The following Committees are expected to report:—

On Cultivation of the Cinchona Tree—Dr. Lemuel J. Deal, Pennsylvania, Chairman.

On Inebriate Asylums—Dr. C. H. Nichols, D.C., Chairman.

On Institutions for Inebriates—Dr. Joseph Parrish, Pennsylvania, Chairman.

On the Structure of the White Blood Corpuscles—Dr. J. G. Richardson, Pa., Chairman.

On Vaccination—Dr. Henry A. Martin, Mass., Chairman.

On the Comparative Merits of Syme's and Pirogoff's Operations—Dr. Geo. A. Otis, U. S. A., Chairman.

On Lithotrity—Dr. E. M. Moore, New York, Chairman.

On Veterinary Medicine—Dr. Samuel D. Gross, Pa., Chairman.

On Protest of Naval Surgeons, etc.—Dr. W. S. W. Ruschenberger, U. S. N., Chairman.

On National Medical School—Dr. Francis Gurney Smith, Pa., Chairman.

On American Medical Association Journal—Dr. James P. White, New York, Chairman.

On Criminal Abortion—Dr. D. A. O'Donnell, Maryland, Chairman.

On Nomenclature of Diseases—Dr. Francis Gurney Smith, Pa., Chairman.

On National System of Quarantine—Dr. J. C. Tucker, California, Chairman.

On what, if any, Legislative means are expedient and advisable, to prevent the spread of Contagious Diseases—Dr. M. H. Henry, New York, Ch'n.

On Renewal of Prescriptions by Apothecaries without Authority—Dr. R. J. O'Sullivan, New York, Chairman.

On American Medical Necrology—Dr. C. C. Cox, D. C., Chairman.

On Medical Education—Dr. Ely Geddings, South Carolina, Chairman.

On Medical Literature—Dr. P. G. Robinson, Missouri, Chairman.

On Prize Essays—Dr. T. M. Logan, California, Chairman.

On the Climatology and Epidemics of—Maine, Dr. J. C. Weston; New Hampshire, Dr. P. A. Stackpole; Massachusetts, Dr. H. I. Bowditch; Rhode Island, Dr. C. W. Parsons; Connecticut, Dr. J. C. Jackson; New York, Dr. W. F. Thoms; New Jersey, Dr. C. F. J. Lehlbach; Pennsyl-

vania, Dr. D. F. Condie; Maryland, Dr. C. H. Ohr; Georgia, Dr. Juriah Harriss; Missouri, Dr. F. E. Baumgarten; Alabama, Dr. R. F. Michel; Texas, Dr. S. M. Welsh; Illinois, Dr. R. C. Hamil; Indiana, Dr. J. F. Hibberd; District of Columbia, Dr. T. Antisell; Iowa, Dr. J. C. Hughes; Michigan, Dr. G. P. Andrews; Ohio, Dr. T. L. Neal; California, Dr. F. W. Hatch; Tennessee, Dr. B. W. Avent; West Virginia, Dr. E. A. Hildreth; Minnesota, Dr. Chas. N. Hewitt; Virginia, Dr. W. O. Owen; Delaware, Dr. L. B. Bush; Arkansas, Dr. G. W. Lawrence; Mississippi, Dr. J. P. Moore; Louisiana, Dr. S. M. Bemiss; Wisconsin, Dr. J. K. Bartlett; Kentucky, Dr. L. P. Yandell, Sr.; Oregon, Dr. E. R. Fisk; North Carolina, Dr. W. H. McKee.

Secretaries of all medical organizations are requested to forward lists of their delegates, as soon as elected, to the Permanent Secretary.

Any respectable physician who may desire to attend, but cannot do so as a delegate, may be made a *member by invitation*, upon the recommendation of the Committee of Arrangements.

W. B. Atkinson.

American Medical Association.

Arrangements have been completed with the Northwestern and Union Pacific Railroads to carry members of the profession, who desire to attend the annual meeting of the American Medical Association on the 2d day of May, 1871, in San Francisco, from Chicago to Omaha and back for $24, and from Omaha to San Francisco and back for $125, making $149 for the round trip from this place.

Tickets can be purchased at any time after the 15th of April, and will be good for 60 days from date of purchase.

Physicians can take members of their own families with them at the same rates. Tickets from Chicago to Omaha and back can be purchased at the Ticket Office, 125 Lake street, *only*. For Omaha to San Francisco and back, at the office in Omaha. But all applicants for commutation tickets will be required to show certificates that they are to be recognized as actual members of the San Francisco meeting. Consequently, all in the Northwest who intend to go, had better send to me, without delay, their names and address, with the names of such members of their families as they desire to take with them.

N. S. Davis,

Sec. Committee on Railroads, 797 Wabash av., Chicago.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—MAY, 1871.—No. 5.

Original Communications.

ARTICLE I.—*Miscellaneous Practice.* By F. B. NORCOM, M.D., Chicago.

NERVOUS SYPHILIS.

CASE 1. Mr. N——; aged 40; married; nervo-bilious temperament; spare in figure, but of large muscular endowment, and great powers of endurance; placed himself under my charge, July 17th, 1870, afflicted with headache, vertigo, etc. Had no hereditary tendencies, and his habits were passably correct, not being addicted to the use of liquors, or tobacco to any very great extent, and moderate in all other indulgencies. He had always enjoyed excellent health, being free from all diseases, except the eruptive disorders of childhood, and the attack of "break bone" fever a few years back, while residing in the South.

In April, 1855, was attacked, about two weeks after an intercourse, with a bubo of left groin, which, in consequence of his vocation requiring very active exercise, ran rapidly to suppuration. Never was preceded by a sore, though it was carefully searched for, both by his surgeon and himself. The swelling was well laid open, but the peripheral inflammatory exudation was so extensive, that a high degree of constitutional disturbance was engen-

dered, and such a condition of blood deterioration, that a few weeks later several glands of right thigh, below Pouport's ligament, became involved with still further disturbance. It was not until the following September that he could return to his business, though he had been sent into the country, and his treatment —alterative, tonic, and nourishing—had been conducted upon the most approved principles. About June also, two roseoloid patches appeared on his forehead, with moderate nocturnal pains, slight alopecia, and mild faucial erythema, but under the use of bark and mercury, etc., as above mentioned, these symptoms soon disappeared. After the autumn, no further manifestations of a specific character showed themselves, until February, 1856, an ulcer appeared, of a low grade of inflammatory action, on the anterior left leg, which healed, however, in a few weeks, leaving a well marked coppery stain, and pointing decidedly to constitutional contamination.

On application July 17th, fifteen years from his primary attack, he complained of persistent frontal headache of three weeks standing, either increased at night, or the early morning, lessening during the day, but with increasing vertigo, so well marked by noon, as almost to prevent locomotion, often compelling him to sit down, or catch at something for support. Accompanying these, a feeling of oppression at the base of the skull posteriorly; slight impaired power of the tongue; a tired condition of the whole body; a tight, subcutaneous, band-like drawing of the angles of the nares and upper lip, extending to angles of the mouth, and transversely of the calves of both legs; and so much weakness of muscular strength, as to disable him from placing one leg forward of the other in walking, or pressing the foot with security to the ground, thus resembling to a degree the symptoms of incipient locomotor ataxia. Slight numbness of forearms, especially the right, with imperfect extension, including hands and fingers; capricious appetite; coated tongue; face drawn and muddy; no tenderness of head upon palpation, or percussion; and no changes of internal viscera.

Not deeming this a "bilious case," nor attributing these symptoms to a perverted action of that much-abused organ, that "mine of mystery," the liver, which had already been spurred up, and ill used to the extent of most women's wombs now-a-

days, I came to the conclusion that syphilis was at the bottom of his trouble, in the shape of either a primary congestion leading to beginning pachymeningitis, or what was still more probable, a gummy exudation, vasic and interstitial. Accordingly, fifteen grains iodide potassium was given in cinchona mixture three times a day; warm bathing; nutritious dietary; absolute exclusion from liquor and tobacco; and a large dose of the bromide potassium at night to relieve the brain, if much oppression should be manifested. Under this management, he began slowly to amend, and in the course of a week I ran up his iodide to thirty grains to the dose, with such decided effect as to free him almost entirely from his headache and vertigo, at the same time with amelioration of his other nervous symptoms; but some derangement of digestion, and a copious eruption of acne of face, back and shoulders ensuing, was forced to omit the mid-day dose, and apply a spirituous lotion with the bichloride, and juniper-tar soap to relieve the cutaneous difficulty. In a week or so, the stomach having regained its wonted tone, I pushed the treatment, which was steadily pursued to October, when being entirely relieved of all uneasy sensations of the head, or other parts, and having increased in weight and strength in a decided manner, I gradually withdrew his remedies, and at this moment, nearly nine months from the beginning of his trouble, he is to all appearance in the enjoyment of perfect health.

To very many of my readers, especially those not well versed in syphilis and its many vagaries, this diagnosis may seem far-fetched, and some might suppose that the various nervous phenomena and the systemic accompaniments were significant of many other disorders, functional or otherwise, but a strict review of this case, with the rapid disappearance upon treatment, will in all probability satisfy them that a correct solution was arrived at, and consequently the patient saved from harsher and more dangerous evils. Persistent intercranial pain, increased at night, as first noticed by Moreau, with vertigo, and the band-like feeling of any special set of muscles, (Rollet), together with moderate paresis and impaired power, and the concomitant systemic disturbance, will generally point to specific disease as the causation, the more certainly when the subject has been visited by syphilis several years preceding. Taking the age, general appearance, habits,

and total freedom from hereditary taint of this gentleman, one could hardly fall back upon apoplectic plethora, softening, or incipient sclerosis, even though the loss of muscular power in the lower extremities and the uncertainty of gait inclined us to favor this latter disease; but that the pathological lesion indicated either a congestion, or gummata forming at the base, affecting the optic thalami, and those portions of the brain from which originate the facial, fifth pair, glosso-pharyngeal, and the upper spinal cord, the well marked improvement under large doses of the iodide abundantly proves.

The subscribers to this JOURNAL may not have forgotten the case of Mr. B—, No. 2, published in the February number, 1870, where I remark, "on the 11th of August, while walking in the street he was suddenly struck by hemiplegia, being preceded only the night and morning before by some little vertigo, distaste for food, and a feeling of *malaise.* I saw him a few hours after his seizure, found complete palsy, hyperæsthesia, and for a short time increased temperature of the left side, with well-marked reflex movements, no abnormal intercranial sensations, but palsy also of same side of face, tongue, and enlarged pupil."

This occurred, as you will perceive, fifteen months after the initial chancre, *without loss of consciousness,* and suddenly too, without the usual slowly advancing prodromes, and very early in life, his age being only 27 years. Is it possible that the same abnormal conditions of the brain may have existed in this case at such an early date, and that of the one under discussion after as many years? or is it not more probable that Mr. B— was laboring under the primary lesion congestion (perhaps cerebral syphilis *sine materiâ* (?)), without more serious complications, as evinced by the thorough disappearance of all symptoms, after a few weeks saturation by the potassium? Although the first patient was simply oppressed by very disagreeable associates, I have no doubt in my mind, that a few weeks or months later he would have been attacked by paralysis, had not a clearance been effected by prompt and energetic measures. I have the record of several cases of the nervous forms of this disease, paralysis of special sets of muscles, hemiplegia, paraplegia, etc., occurring from six months to twenty years after the first stage, and several of these are dead, and others left in a deplorable state, from the improper

and unscientific treatment pursued—the active agent not being recognized—and consequent irreparable injury of nerve-tissue. Possessing a fair experience in the management of such subjects, I can safely recommend that, when the iodide potassium is called for, it be exhibited in very large doses, twenty to thirty grains three times a day to begin with, and no limit be placed, only so far as derangements of stomach or skin may demand an occasional remission. Remember, that in severe cases there exists either a bony or gummy lesion, and if you would ward off destructive changes of nerve-structure, and avert death from your patients, you must use the remedy without regard to quantity, only regarding a favorable amelioration of the symptoms.

Iodism is not to be reckoned; and mercury, no matter how guarded, or combined, to be shunned; but to render efficacious any form of specific treatment, such essentials as pure air, nourishing food, regular sleep, tonics, etc., must be considered, and such measures must be perseveringly followed many months after a perfect cure has apparently taken place.

GUTTA ROSACEA.

(Synonyms:—Bacchia; Rosy Drop; Brandy Face; *improperly* Acne Rosacea.)

Case 2. Mrs. S——; aged 30; married, and mother of one child; nervo-sanguineous temperament; came under my treatment Oct. 8th, 1870, afflicted with gutta rosacea of five years standing. She possessed no hereditary proclivities, coming from very healthy stock, and had never suffered from any severe illness, even excepting those of younger life. At the age of fourteen years, was visited by an attack of acne punctata et comedones, aggravated during the menstrual epochs, and which continued off and on until her marriage, then growing less and less, and finally disappearing to give place to her cutaneous ailment, one year anterior to the birth of her child, now four years of age.

This affection began simultaneously on the prominences of both cheeks, first by flushes, induced probably by the stimulus of food and mental emotions, and from this erythematous stage, gradually, through a succession of months, assuming higher inflammatory types, until its present condition. Upon a strict examination, I found two extensive patches, one on each cheek, presenting several phases of this well known disease; the central portions, evidently the longest exposed to inflammatory congestion, exhibiting

those varieties, known as gutta rosacea tuberculosa, and pustulosa; while toward the circumferences, the milder forms came under our observation, such as punctata and papilosa. The skin was thickened to some extent by inflammatory exudation, and she experienced at times, as almost from the first, the disagreeable sensation of burning, itching, and latterly severe throbbing pains. Apart from these subjective symptoms, the objective disfigurement had rendered her extremely unhappy; debarring her in a great measure from society, unless among her intimate friends; causing great mental despondency; and thus reacting upon her general health, creating marked nutritive and nervous debility; while, to cap the climax, as it were, in the fifth year of her trouble, the nose began to exhibit signs of capillary stagnation, and at this moment is in a state of blooming hyperæmia.

The roseate hue, and the uneasiness of this eruption, are much enhanced by full meals, especially of stimulating food, or condiments; by exposure to a heated atmosphere; or by the inevitable reaction following exercise in the cold air; and though she has submitted herself to various forms of treatment under several physicians, she seemed hardly to have derived even partial benefit, and in several instances suffered such excruciating torture from the local remedies used, that she was forced to abandon them, and at the same time all hopes of a deliverance from this severe visitation.

Her mental distress may be well imagined, when I state that vanity is a characteristic trait of the human family,—not of the female portion exclusively, as most people would ungallantly urge, for, there is no person on the face of the globe with a larger share of this ingredient than the biped man, and the uglier, and more forbidding, the more he has of it,—but, at the same time in the fairer sex it is a pardonable quality, as it leads to the adornment of their persons, the preservation of their beauty, and the envy of their rivals (especially intimate and confidential friends,) all for the sake of pleasing and attracting the *soi-disant* lords of creation, and one can readily excuse and pity any fair lady, who may be subjected to such defacement of her personal appearance.

The diagnosis should not be at all difficult, since few diseases of the skin can be mistaken for it; mayhap lichen, impetigo, or the erythematous or papilous eczema, but the general history, the

locale and the age will clear up all doubt. It very frequently is miscalled acne rosacea, a very old name, and placed, in the classification of several authors, among the pustulæ; but acne is essentially a disorder of torpid glandular secretion, leading to the accumulation of sebaceous matters, and by mere mechanical pressure, causing irritation and inflammation. It belongs to the eczematous family, and has a constitutional origin; non-contagious, chronic, but amenable to treatment, though it may have to be pursued perseveringly many months or years. Recognizing the existence of nervous and nutritive debility as a definite constitutional element, I began by prescribing the arsenio-ferruginous mixture to give tone to the system, and reinstate her general health; at the same time allowed her a nutritious dietary, excluding crude or indigestible materials; regulated the secretions; advised warm bathing, and exercise in the open air; and all the moral suasion in my power, to calm her mental disturbance, by the assurance of a certain cure, without painful applications, or nauseating medicines. Locally, a wash of the bichloride and spirits of wine; the benzoated oxide of zinc ointment; and several times a day an ablution of cold water, with juniper-tar soap. This treatment once begun was persisted in steadily, increasing from time to time the arsenic, until about ten drops of Fowler's Solution three times daily were reached; and an occasional change of the ointment, to that of the compound hypochloride of sulphur. Of course, she was cautioned against every thing that might act as a remote predisposing cause to perpetuate this disease, and as I could detect no direct one, excepting constitutional *debility*, my measures were mainly directed to overcome this, and with such effect, too, that in three months the skin had thinned very materially, and almost completely lost its characteristic features.

She is still taking the iron and arsenic, and obeying my directions in every particular, and though the last time I saw her, late in March, with a total subsidence, if we except the congestion of the nose, she will continue the remedial measures increasingly for at least a year, or perhaps more.

It may seem superfluous to comment further on this case, as belonging to that class of cutaneous affections, known as chronic, and for which very few among our profession have any liking, unless indeed they make special study of the same; yet I do not

wish to leave before reiterating my views on the exhibition of arsenic, and giving some caution in regard to the topical application of remedies. It is well understood that one of the greatest authorities on such subjects—Wilson—rarely prescribes arsenic except in small doses, continues it for years if necessary, and never desires to obtain its decided physiological effects. But my own experience has forced me many times to increase this agent to very large quantities, until in fact systemic irritation was induced, before I could possibly see the least benefit resulting. I feel certain that, in many chronic cases, the remedy has been used month after month, until the patience of both the afflicted and the physician were exhausted, and it was only after its poisonous qualities—if they may be termed such—were manifest, that improvement rapidly began, and if I am not greatly mistaken, this is the view held by many experienced men, and now certainly gaining ground. I can only add, that if those interested will try it, they will not be disappointed.

Again, it is entirely unnecessary, in making local applications to the great majority of such affections, that pain be produced; it is a great drawback to the cure as a rule, occasioning local irritation, if not inflammation, creating often foreign complications, and disheartening your patients. The more soothing you can make your applications consistent with their curative power, the more certainly they will fill your expectations, and the more the unfortunates will appreciate your skill and forethought in their behalf.

ASPERMATISM.

Case 3. Ben, a griff negro; aged 34 years; married; with large muscular development; came to consult me May, 1863, in regard to an inability to perform the marital act, saying he had "lost all ambition"; a lamentable circumstance, viewed by him, as by every other negro, in the light of a dreadful calamity, and as foreshadowing the end of the world, or perhaps the coming of the millenium. His antecedent history was that of robust health, and exemption from disease, with the exception of occasional attacks of intermittent fevers, diarrhœa, or catarrh, lasting generally a short time, and imparting no weakness to his constitutional vigor.

The history of his present trouble dated some three months back, about the middle of February, when the fact gradually

dawned upon his startled intelligence that, though perfect in erection, there was too much hard work—as he termed it—and too great an expenditure of breath to bring about the orgasm; and as time waned on, the imagination being now thoroughly aroused, matters grew worse and worse, until the consummation became absolutely impossible, though possessing the working power of a six-horse engine; and to complete his misery, erotic dreams were introduced several times a night, with spermatic floodings, which he looked upon with disfavor, as an unsatisfactory appropriation, and a dead loss of so much of the raw material. At the date of his application, he was apparently in the enjoyment of good health, and a strict examination of the sexual organs, and their associates, elicited nothing determinate or satisfactory; scrotum very flaccid, about the size of a half-peck sack, and enclosing two ponderous testicles, a little tender upon palpation; penis, enormous in length and size, bearing a close resemblance to a member of the ophidion genus—known as the coluber constrictor—without stricture; and bladder and prostate natural. Subjectively, he complained of weakness in the loins; paroxysmal pains in the testicles, especially after the nocturnal orgasms; deficient appetite; and a melancholic feeling, as if life were a delusion, and stripped forever of all enjoyment; yet clung to that blessed boon, hope—still left us all in the bottom of that mythological box—to cheer him on to eventual recovery. As I had never before encountered such a case, my diagnosis was necessarily obscure and faulty; it was no priapism, nor erotomania, nor impotency, in the proper acceptation of this term, and thus reasoning by exclusion, I was forced to fall back upon aspermatism, of which I knew very little, and hence could hardly expect that any treatment based upon such imperfect knowledge would meet with deserved success.

Supposing the pathological condition to be that of abnormal irritation of the muscular endowment of the ejaculatory ducts, arising, doubtless, in this subject from inordinate venereal indulgence, I began by establishing repeated counter-irritation in the perinæum by vesication, the size of a sixpence, and dressing with belladonna ointment; full narcotic of opium at night; white mixture to regulate the bowels; digestible, but unirritating, food; cold bathing to the loins; total abstinence from liquors, of which

he was very fond, and of females, of whom he was much fonder; and large doses of chlorate of potass, for what particular indication, I could not say. This treatment, so far I as could control the patient, was insisted upon vigorously, not only for the sake of science, but to secure a cure as soon as practicable, in order to allay any feeling of displeasure in the community, for Ben was a gay Lothario, (a kind of "plantation bull,") and in great request among the dusky Phrynes of the neighborhood. That he did not obey me strictly in regard to "wine and women" is pretty certain, and that he neglected the other measures is equally true, but before the end of August the disease was under full subjection, and he reported himself a man again, and able to hold his own, "widout loss of bref," and "widout breakin' hissef all to pieces."

During the management of this boy, I consulted all the literature on the subject, not only in my own possession, but the libraries of my friends, and discovered how very few and scattering were such cases, one here and there among the medical journals, finding, at length, that excellent treatise on "Impotency and Sterility" by Routand, a thoroughly scientific *brochure* published in Paris about the year 1855 or 1856, containing the histories of several such, and to which he was the first—if I am not mistaken—to give the name of "Aspermatism," a misnomer, however, since there is no deficiency of seminal secretion, but simply a want of power to eject, occasioned by spasmodic contraction of the muscles of the ejaculatory canals, and their consequent occlusion, thus preventing the completion of the act.

Within the last year, another case, but by no means so well marked, presented itself in the form of a gentleman suffering from gleety discharge, unaccompanied by stricture.

There was considerable irritation of the distal portion of the urethra, as was evinced by passing the sound, some tenderness of the prostate gland, and slight aching, at times, of the testicles. Lascivious dreams, with emissions, were frequent, often two or three times a week, with occasional remissions of two or more nights, and it was only at long intervals—once a month or so—that he could succeed at all in sexual intercourse, though the erections were perfect, but now and then painful to priapism. He gained very materially under the passage of steel instruments

twice a week, with large doses of bromide of potassium at night: belladonna and iron twice a day; cold salt bathing of loins and pelvis, etc., but being obliged to leave the city after a few weeks for the far West, I have been unable to follow up the record. It seems difficult to account for this peculiar condition pathologically, except upon the assumption of direct or reflex irritation, determined, through constitutional idiosyncracies, by an inflammatory state of any or some portion of the urethral track, or neighboring organs, but as my own information and experience were extremely limited, I was inclined to doubt whether the treatment was consistently philosophical, or had any influence whatever in mastering this condition. Now, Ben was under supervision, more or less, for three months, though the counter-irritation and belladonna were not persisted in longer than six or seven weeks, and it is highly probable that the other measures were also inefficiently carried out; but he began to improve markedly, and when once this change for the better took place, there was very rapid advance, and never retrogression. The balm to his disturbed mind, too, in my assurance of his final recovery—a prognosis which I had no right to give, and which, in my ignorance, I had no right to predict—may have had as much weight in the scale as the more material remedies exhibited.

ARTICLE II.—*On a few Instruments for the Practical Treatment of Uterine Disease.* By PHILIP ADOLPHUS, M.D., Chicago.

(Third Paper—continued from March No.)

1st. Emmet's Applicator; used to remove secretions from the cervix and uterine cavity.

2d. Nott's Dilator.

3d. Pinkham's Intra-Uterine Scarificator.

Although these articles were written for the purpose of elucidating the topical treatment of uterine disease by instruments; yet constitutional treatment is in many cases requisite, and local treatment without it generally a failure. The treatment of

chronic uterine disease has been brought into disrepute in some quarters by exclusive views, by advocating solely either mechanical appliances, topical applications, or general treatment.

To insure success, these three measures have to go hand in hand: Hygienic and medical treatment, with suitable applications to the parts affected, and the *simplest* mechanical appliances in skillful hands, will insure improvement in a class of cases proverbial for taxing the patience of the attendant and the faith of the patient.

There are a few principles to be observed in the use of instruments, and indeed in the treatment of these diseases generally, so indisputably sound, that they may be stated dogmatically.

1stly. *To endeavor to do the patient no injury with our treatment.* (Chomel).

2dly. *To be always hopeful.* "With rare exceptions, of which cancer is a prominent example, those who treat diseases of women may deal largely in hope, *and I feel my duty is not well done toward a patient, if she leaves me without believing that cure is certain, though it may be delayed. One great advantage of experience is that it teaches us to hope.* * * * * I have repeatedly seen such patients recover, if their courage can be kept up, so as to make them persevere, with more or less of active treatment, during one, two, or even three years."* "If a young physician called upon to take charge of a case of cancer should take up the most recent systematic works on gynæcology, to ascertain what he could do to arrest the progress of the disease, palliate symptoms, or to relieve suffering, I think the result would be a despondent impression as to any positive service he could render to his patient. Yet in few diseases are the resources of art so manifest and so conclusive as in this, for we can most certainly improve nutrition, relieve pain, secure sleep, and arrest the sanious offensive discharges and hemorrhage, and thus notably prolong life, and make it tolerable to the end. *I have often thought that the feeling on the part of the physician, that the case is hopeless, discourages the constant and assiduous care which may really be of great service to the patient.*"†

* Uterine Therapeutics, E. J. Tilt, 1869, fol. 7.

† Clinical Observations on Malignant Diseases of the Uterus. By Fordyce Barker, M.D. Am. Journal of Obstetrics, Nov. 1870, fol. 534.

It is therefore our manifest duty to hold out inducements for hope, proportionate to the nature and duration of the patient's disease. The rule which the writer follows in *all cases*, is to promise relief, sooner or later, and on being questioned when relief may be expected, he answers, that in many cases it will be realized in a shorter time than he would dare to promise; that patience, intelligent co-operation, and faith in his ability to relieve her, will render its accomplishment more speedy. To insure this faith on the part of the patient, and to fan the embers of hope brighter, he takes exact notes of the slightest of her symptoms, and at short periods, compares the state of the patient with these notes; it is then generally found that some of the symptoms are mitigated, or have entirely disappeared. In short, to insure success, it requires patience, faith in the powers of nature and one's own skill; these will inspire implicit confidence on the part of the patient. (Tilt).

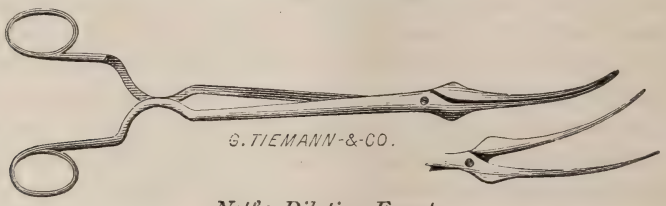
Having introduced the Speculum (Nott's or Sims'), and probed the cavity of the womb, we are ready to apply topical treatment to the canal of the cervix or cavity of the organ, provided these parts are open for the escape of fluids, and the easy introduction of instruments. If not sufficiently pervious, sponge or sea-tangle tents are used, which will expand the cervix to almost any extent desired, but it is generally more convenient and expeditious to use metallic dilators when the parts are dilatable. The practice of Mackintosh, Priestly and Simpson, of dilating the cervix uteri for dismenorrhœa, has been adopted in the treatment of many other complaints; and it is necessary for the success and safety of any surgical procedure with the body of the womb. Both Kammerer* and Peaslee† use a series of sounds for the dilatation of the cervix, previously to applying intra-uterine medication; the first employs a set of four sounds, "which are graduated, that, by their successive introduction the uterine cavity can be dilated with the use of a moderate amount of force." (Kammerer). Peaslee "began to use, seven years ago, a set of steel dilators of his own devising, with the object of producing a far more rapid dilatation of the cervical canal than sponge-tents or laminaria can

* On the Treatment of Uterine Catarrh. Joseph Kammerer. Am. Journal of Obstetrics, Aug. 1869.

† N. Y. Med. Journal. Intra-Uterine Medication. July, 1870.

effect." They are five dilators, ranging from $\frac{1}{8}$ to $\frac{5}{16}$ of an inch in diameter, and he has found their use very satisfactory. J. C. Nott,* to effect the same object, uses a pair of forceps, which the writer prefers and which he recommends. "All tents are open to the objection that the dilatation produced by them is only temporary, and their repeated introduction, previous to every application into the uterine cavity, is too laborious" (Kammerer, oper. cit.), and the writer adds, in office practice impracticable. Although the dilatation produced with the metallic dilators is also of a transient nature, yet a few seconds will suffice to dilate the canal sufficiently for intra-uterine applications.

The writer prefers Nott's dilator, because it is an effective, powerful instrument, entirely within the control of the operator, when introduced into the cervix or urethra, where it may be expanded gradually, slowly or suddenly, being governed in its expansion entirely by the sensations of the patient. One introduction at each session, if dilatation is necessary at all, suffices in every case, and one instrument only is necessary; whereas, if Peaslee's and Kammerer's sounds are used, the smaller sound is followed by the larger, and if the direction of the cervical canal should be abnormal, difficulty and pain result.



Nott's Dilating Forceps.

They may be described as a pair of slightly curved forceps, with handles like scissors, which when closed have a diameter of one-sixth of an inch; at about two inches from their point the blades expand in a bulb-like protuberance, so that they can only pass that distance into the uterus. The mode of their introduction and application is as follows: place the patient in the usual position, introduce the speculum, fasten Sims' hook to the anterior lip of the cervix, ascertain the direction of the canal by means of the probe,

* Treatment of Endometritis by Uterine Injection. J. C. Nott. Am. Journal of Obstetrics, Nov. 1869, fol. 470.

follow it by Nott's dilator closed; expand the blades very gradually, slowly, carefully, requesting the patient to inform you when the pain cannot be borne. If so informed, desist at once, and after a few moments of intermission, again expand the blades. This will generally give the requisite permeability to the canal; if not, relinquish all further attempts for that day, apply a piece of cotton wool saturated with glycerine to cervix, a rectal pill of Morphia and Belladonna into the rectum, and postpone dilatation to the next day.

In cases where the canal of the cervix only is implicated, it is generally sufficiently open, even without dilatation, for the cleaning of the parts, and for the introduction of remedies by Emmet's applicator; but in cases where the mucous membrane or parenchyma of the body are affected, and it is desirable to clean the parts thoroughly by intra-uterine injection, (and it is always advisable to use Nott's catheter in these conditions of the uterus if complicated by flexions), then it becomes requisite to dilate the parts for the purpose of introducing the instrument with ease.

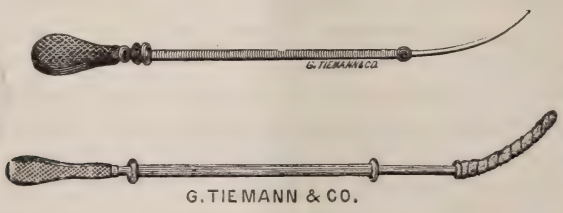
The dilator is harmless if properly handled, but the same precautions must be observed as with tents, viz., avoid its use in an irritable and sensitive condition of the parts. The aphorism of Byford "that a tender uterus is a diseased uterus" should always be remembered. A golden rule it is to pay strict attention to the *local* nervous symptoms, as well as to the *general* nervous manifestations of the *local* disease, before attacking it by disturbing appliances. This broad and catholic teaching of Hugh L. Hodge is an axiom in the treatment of pelvic disease of every description, which must never be ignored. The penalty of its neglect is danger of life to the patient, and loss of reputation to the practitioner. Therefore allay local irritation by local depletion, hot injections (Emmet), suppositories of glycerine to cervix (Sims), and suppositories of glycerine medicated (or simple), with extract of belladonna and extract of aconite into the uterine cavity, and suppositories into the rectum, as a preliminary step.

"Many words have been wasted, I think, on the danger of dilating the cervix uteri. Sponge tents, rapid abortions, Barnes' dilator, all act in the same way; and no one fears the effects of these, except the sponge, which is a putrifying, irritating material. The dangers of dilatation, whether gradual or sudden, are attribu-

table to an inflamed or morbidly sensitive condition of the organ, and it is often important to allay irritation before the use of tents."*

It may be asked what kind of instrument should be used for the purpose of cleansing the canal of the cervix and the cavity of the womb, of accumulated secretions, which always render efficient treatment nugatory by their neutralizing influence, when chemically combined with the substances introduced. That instrument is the best, that, with a calibre permitting easy entrance into the cavity of the uterus, combines such flexibility as will permit it at *once* to assume in the hands of an experienced operator *any required shape.* It must be able to follow the most tortuous track in the canal of the womb, which had been traced by Sims' probe; and lastly, it should, when withdrawn from the uterine cavity, free itself of the fouled cotton wool, without the agency of the operator's hands, which would be soiled thereby.

Almost all the probes now in use have their faults. Budd's whalebone probe, *the best of all*, requires a preliminary moulding to any given position, by means of hot water, or heat, then a secondary hardening, which it acquires in cooling, before it is enabled to follow the channel traced out by Emmet's probe.



Emmet's Applicator.

We possess the *perfect instrument* in Emmet's applicator, made of annealed silver wire, flexible, yet with the requisite firmness, flattened at its upper extremity, and mounted on a light handle. It is almost the *fac-simile* of his improvement of Sims' probe; a little larger, slightly stouter, and flat at its extremity, without the bulb of the other instrument.

To this is added, for the purpose of perfecting it, a compressed coil of brass wire, five inches in length, hollow and flexible, resembling an enlarged watch spring, capped at each extremity

* J. C. Nott, op. cit.

by a hollowed bead of gutta percha, which bead is fashioned flat at one extremity of the coil and rounded at the other. This addition, devised by Sims, passes over the instrument as a slide, and acts, when the latter is armed with cotton wool and the coil is propelled towards its point, by pushing the roll of cotton off into the neck or cavity of the uterus.

This instrument may be advantageously used for cleaning the uterus in the following manner: Slip Sims' brass coil or slide over Emmet's applicator, arm it with cotton wool; (the patient is in the usual position, with speculum *in situ*, Sims' hook holding the anterior lip, Emmet's probe still in the cavity of the cervix or uterus, tracing out its direction,) now remove probe from uterus, examine its curve, and give the identical curve to the armed instrument, dip it in salt water (Peaslee), or very dilute muriatic acid water (Swann), for the purpose of dissolving the secretions of the cervix; again introduce Emmet's probe as a guide, and follow it by the armed applicator immediately. After cleaning the cavity, remove the instrument, and push the coil or slide towards the end of it, the fouled cotton still adhering will then drop off.

The writer will in a future paper prove, by competent authorities, that the mucous membranes of the fundus, body and cervix, as well as the parenchyma of the uterus, are often simultaneously and consecutively affected to a greater or less degree; and that erosions, excoriations and ulcerations co-exist. Congestion plays a very important part in these affections, it produces chronic uterine catarrh, this in turn induces lesions of the mucous membranes of the cervix; congestion farther developes chronic engorgement of the walls of the organ, as well as flexions, whilst flexions again cause congestions.

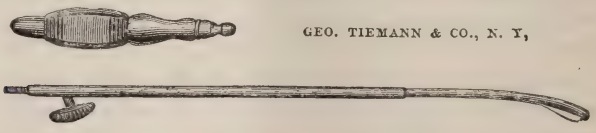
Here then we have the indications for local bloodletting; now leeching is too expensive, often painful, it causes annoyance to attendant and patient, and occupies much time. Scarifications cause no pain, if the instrument is in proper condition, and can be performed quickly and efficiently.

The congestions of the cervix may by Buttles' and Emmet's instruments be efficiently treated; but when the body and fundus

of the uterus are implicated, and we wish to remove blood from these parts, some intra-uterine scarificator is essential.

To Miller, H. R. Storer and J. G. Pinkham, is the profession indebted for excellent intra-uterine scarificators. To Storer also belongs the distinction of having been the first to suggest intra-uterine scarification, which, when the profession generally practices it, will be acknowledged to be a great advantage in the treatment of diseases in which the parenchyma is implicated. The instrument which the writer uses constantly is Pinkham's Improved Intra-Uterine Scarificator.* Dr. Miller's instrument,† as well as that of Dr. Storer,‡ in proper hands, leave nothing to be desired, although each of these gentlemen claims that his instrument is the *most* practical, which no doubt it is, in his own experienced hands.

The writer speaks highly of Pinkham's instrument, because he is familiar with it, and has succeeded by its means in verifying for himself the assertion of Dr. Storer: "I can truly say that I have repeatedly produced a greater amount of relief in a week or two, than I had previously been able to effect during many months."



Pinkham's Intra-Uterine Scarificator.

Here is the description of the instrument; it consists of two essential parts:

1st. A small knife attached to a slender staff; and

2d. A hollow tube, eleven inches in length, as a receptacle or sheath for the knife; this is furnished with a handle. This tube is curved and fashioned like a sound at its upper extremity. The concave surface of the upper part of the tube is perforated by an aperture $1\frac{1}{4}$ inch in length, through which the knife emerges when used for scarification. The extreme top of the tube is unscrewed whenever the instrument is cleaned, at which time the

* Journal of Gynæcological Society, Boston, Aug., 1869, upon Scarification of the Cavity of the Uterus, by J. G. Pinkham, Lynn, Mass.

† Boston Med. and Surg. Journal, March, 1867, p. 133.

‡ Transactions of the N. Y. Med. Society in 1867.

staff, to which the knife is attached, is pushed out of this aperture, and removed; it and the knife are then freed of blood.

The knife can in no instance emerge far enough to perforate even the walls of the thinnest uterus. Objections may be advanced against the use of this instrument on account of the injuries it might inflict. These objections, if they emanate from parties who have not used it, however respectable and eminent their position, are not entitled to any weight.

Intra-uterine scarification is a simple and safe operation in competent hands; only those, however, should attempt it who are adepts in the use of Emmet's uterine probe, not that serious damage of the parts can be inflicted, save contusions to the mucous membrane, but bungling produces pain.

The mode of performing intra-uterine scarification is as follows: The patient having been placed in the usual position, introduce Nott's speculum, ascertain by means of Emmet's probe the direction of the canal; follow the probe, on its withdrawal, by Pinkham's scarificator, scarify the uterus from fundus to cervix, in all directions before withdrawing it; this is succeeded by a probe armed with moistened cotton wool, to prevent the clogging of the cut surfaces with coagulated blood. After scarification apply a glycerine suppository, order hot vaginal injections, suppositories per rectum, etc.

It may, in conclusion, be proper to state that these scarifications remove in the aggregate a comparatively small quantity of blood, far less than leechings. It might else be inferred that these depletions react injuriously on the constitution; they must in all cases be limited to combat local congestions and these only.

The instruments described in this paper may be had of Messrs. George Tiemann & Co., of New York, and of their agents, Messrs. Bliss & Sharp, of this city.

169 Dearborn Street.

ARTICLE III.—*Correlation of Physical and Vital Force; Clinically Illustrated.* By Z. C. MCELROY, M.D., Zanesville, Ohio.

(A Paper read to the Muskingum County Medical Society, April 7, 1871.)

Questions of science and fact are not often settled by after-dinner addresses. And for their utterances on such occasions, gentlemen are very properly not held to very strict account.

But it is, nevertheless, to be regretted that those whose positions in life give to their utterances on all public occasions an *ex cathedra* importance, should ever discuss questions of science and fact as partisans of particular conclusions, in the absence of positive demonstration.

Prof. Gunn,* at the recent commencement of Rush Medical College, discussed at some length, and in no catholic and scientific spirit, it seems to me, the correlation of the physical and vital forces; but rather as a partisan that no such correlation exists in fact; and felicitously introduces the Indian story of turkey and crow, to make more dramatic the position the parties occupy, for and against it, in the controversy now in progress.

"Brudders, 'pears to me not one of ye hab on any part of de Christin harness but de brechin, for ye don't do nothing but hold back," said the colored preacher to the congregation with whom he had been laboring ineffectually for a revival. That, it seems to me, is Prof. Gunn's position in science. Or, it may be, in regard to the correlation of the physical and vital forces, he occupies that of the Irishman towards oysters as food, "he did not like them, and by his modesty never would." So, on that occasion, Prof. Gunn would not allow physical and vital force to be correlated, and seemed determined they never should be. But his fixing it up was, perhaps, like the fixing of Mr. Smith's old clock, it would not stay fixed.

Whether the so-called vital and physical forces are correlated in the human body, is a question of fact, not of fancy, and must be decided, as all other questions, by the facts for or against it, that is, demonstration.

* Chicago Medical Journal, March, 1871.

Stripped of its technical clothing and surroundings, the naked question may be stated as follows:

"Are the phenomena presented by the human body, mechanical, chemical, thermal, sensory, emotional, intellectual, and psychological, ultimately due to the operation of the ordinary physical forces, or are they due to a peculiar vital force manifested nowhere else in the world than in living beings?"

Some years since I took up this question for study, altogether indifferent as to the conclusions to be reached, so that they should be ultimate truth. I did not study it to satisfy my curiosity, but to define more clearly my duties and power in prescribing for the sick. And the purpose of this paper is to map, in outline, the steps by which a satisfactory conclusion to my mind was reached. As I was better acquainted with my own body than that of any other person, it was constantly referred to in the study. And I brought to bear in the investigation what I think was a tolerably full acquaintance with the accumulated facts of life, physiological, pathological, dynamic, and therapeutic.

As a starting point, it was noticed, particularly, that I was located on the surface of the earth, which was whirling its way through space in its annual circuit round the sun, at the rate of many thousand miles per hour; and therefore not occupying any one point in space, any time appreciable to my senses. The nearest planetary neighbor was some two hundred and thirty-seven thousand miles distant; while the sun, the center of our planetary system, was distant some ninety odd millions of miles. All that is certainly known to be received on the earth from either the central luminary, sister planets, or remoter stars, is the light and heat of the sun, direct and indirect.

Looking over the earth's surface it was observed that animal life existed in the precise ratio of the amount of light and heat of the sun received at different points of the earth's surface, with a soil capable of sustaining vegetable growth and life. In other words, life only existed under certain physical conditions. It was therefore evident to my mind that the sun's rays and life had some intimate relationship to each other—were, in fact, cause and effect, so to speak, palpably linked together. But how? The rays of the sun might fall on the most delicate substance for days, weeks, months, or even years, with no direct traces of any effects,

except such as were attributed to "the weather." The "imponderable elements" of natural philosophy and chemistry — light, heat, electricity, magnetism, galvanism, gravity, chemical affinity, or ozone, it seemed a hopeless task to connect with life. Soil and sunlight, and the human body! how unlike, and how seemingly impossible that they are in matter and force the same!

Yet that is precisely the Creator's account. "And the Lord God FORMED man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul." (Gen. ii. 7.) The first, and principal, act of creation, was making the forms of the body; the second, through the nostrils communicating life, or motion to the form; and the result, man became a living soul. And this account of the genesis of the human body is not only literally, but scientifically, correct to-day. The forms of the body are built up during intra-uterine life, and motion communicated through the nostrils immediately after birth to the form. And the same order in the succession of events are still necessary, and observed in its perpetuation; the female furnishing the material, the male impressing the materials with the forms, and the result, a living soul! And the whole of the proceedings still take place on earth, with materials common to earth, and by the earth's forces. For the materials of the ovum supplied by the female, as well as that supplied by the male, in the act of reproduction, must necessarily be from the food eaten by them respectively, which, in families, is from one common table; and all directly or indirectly from the vegetable world; and ultimately from inorganic materials. And at last, sunlight and soil.

Early education, however, had impressed the idea on my mind that, in some way, not definitely understood, human bodies had, in part, an extra-terrestrial origin; that man was the "lord of creation," a vastly superior being to any other forms of organic life around him; in fact, that all other animal and vegetable life existed merely to minister to his wants, necessities and pleasures. True, there were some ugly facts in the way of such conclusions; as, for instance, that the flesh of most of the inferior animals could be, and were, used as part of his food. And it was tolerably certain that human bodies were constructed out of the food eaten. But that which staggered me most, was that the continuance of this most elevated, or celestial force, *i. e.*, life, or vital,

was at the mercy of so many physical contingencies. Thus, life could be terminated by water, drowning, and yet a certain proportion was necessary for its continuance; combustion, heat, and yet a certain proportion, like water, was a necessity; certain mechanical processes, as falls, blows, bullets and bombs; starvation; chemical combinations of matter; animal, as the virus of serpents, insects, etc.; vegetable, as opium, nux vomica, etc.; and inorganic, as salts, or oxides of arsenic, copper, lead, etc. The conclusion, then, that the importance of any so-called vital force, peculiar to the human body, and controlling its physical organization, has been somewhat exaggerated, seems well nigh irresistible in the presence of such an array of facts, to which few or none of us can be wholly strangers. It will be seen, in the sequel, the question "has it any existence?" is still more pertinent.

Then I was confronted in the literature and teachings of the profession with a list of several hundred specifically distinct entities of disease; and from thirty to forty distinct classes of medicines! sufficient to appal the bravest and best cultivated intellect, and to smother at once any hope that order could be established in the midst of such a chaos.

The first, because the most obvious conclusion reached was, that in all the varied and apparently incomprehensible phenomena of organized life, nothing happened by chance or accident, but in obedience to fixed and unchangeable law. Then I wrote down as the first general principle, that "the reign of law was supreme in organic and inorganic natures." The next safe ground reached was, that neither matter nor force could be annihilated; that as one mode of force disappeared, it was merged into some other mode of force; and that matter was equally persistent. That was written down as "the correlation and conservation of force, and continuity of matter."

The next points for decision were "By what means do I, as an organized existence, or being, know that there are such things as matter and force? How do I know that there is light, or sound? How and by what means are the faculties of the intellect worked?"

In regard to light, I was not long in discovering that my knowledge of its existence was altogether dependent on the particular forms of structure of the eye; for, without these, neither I,

nor any other human being, could know anything of light. The knowledge that there was such a thing as sound, depended in like manner on the particular forms of structure of an auditory, or hearing apparatus. So of smell, and taste, both were dependent on special molecular forms of organic structure. And the functions of these special molecular forms of structure were not interchangeable with any other structures of my body. No other member or part of my body but my eye, for example, recognized or made evident the existence of light. And none could hear or recognize the existence of sound but my ears. Nor taste, nor smell, except through particular forms of structure endowed for the performance of these particular functions. But each of these special organic instrumentalities was endowed, in addition, with a sensibility common to all the structures, though of varying intensity. It was, therefore, evident that my body, in virtue of this common sensibility, was a unity, whether in health or disease; and that such a thing as a local disease, or a locally operating remedial agency, was an utter impossibility. In consequence of these facts, to wit, that the existence of matter, force, light, sound, etc., were dependent on particular molecular forms of organic structures, I wrote down the third general law, as follows: "Function is the language or expression of molecular forms of structure behind it."

The next necessary step was to obtain proper conceptions of how or in what manner these molecular forms of structure performed their functions. Were they like the watch, recording the lapse of time on its dial, the interior structures remaining intact or perfect? Or, were they like the candle, performing duty or function at the expense of substance?

The evidence on this point was clear and decisive that their duty was performed at the immediate expense of molecular forms of structure. Thus, the supply of proper food at short intervals, the excreta from the lungs, skin, bladder and bowels, all testify to the molecular changes going on incessantly within; that sleep, or entire repose from duty, at short intervals, of the special senses, was a needful condition of repair. These and many other facts made it evident to my mind that the fourth and fifth general laws were as follows: "Organic or life force, so to speak, stored up in

molecular forms of organic structures;" and "For every dynamic result there must be changes of matter."

I felt that thus far all was safe. These laws were absolute; for no exceptions could be found anywhere. And this brought me face to face with the so-called vital force. Was it a fact? or was it a myth? Where was it? and what was it?

Before proceeding to the solution of these questions, it may be well to return to the starting point for a review or summary of settled points. They are: Reign of law supreme;—matter and force persistent;—force correlated;—function the expression of the molecular forms of structure behind it;—force stored up, so to speak, in the molecular forms of structure;—for every dynamic result there are changes of matter.

The next point, then, for solution is "Where is the vital force?" Is it in digestion and assimilation? The conditions for digestion and assimilation to take place are, a living being, proper food to be digested and assimilated to its forms of structure, and introduced into a proper receptacle or stomach. These two processes or functions are performed in the human body by a necessarily complicated apparatus, and at the expense of the molecular forms of structure, the force for which is stored up in the several necessary structures. The ultimate materials, in both food and organic structures, are all inorganic. Certain physical conditions are necessary, as temperature and the inorganic gases of the atmosphere—oxygen and nitrogen. The necessary force is evolved by the decay, by oxidation, of existing molecular forms of structure, as evidenced by the fact that, after loss of molecular forms of structure, the capacity for digestion ceases.* And an indispensable condition of digestion is that the gaseous atmosphere shall be introduced into the living body in an almost unbroken stream at the lungs. There is in the evolution of force a direct or indirect union between an inorganic gas and organic structure. That this is so is evidenced by the fact that the expired gases differ widely in chemical states from the inspired. And again demonstrated, negatively, by cutting off the supply of atmospheric gases, when the chemical changes of matter in such a way as to reproduce the momentarily wasting molecular forms of structure cease. Other chemical affinities come into play, and there is a hasty

* For demonstrative cases, see N. Y. Med. Journal, March, 1871.

retrocession of all organized matter present to simpler chemical states; the correlation of force being heat. Putrefactive decomposition is clearly a physical process, occurring in obedience to known physical laws. But as the reproduction of molecular forms of structure has never been satisfactorily accounted for by any known chemical or physical laws, it has been referred, from the remotest antiquity, to the operation of a peculiar vital or life force. And if it cannot be satisfactorily accounted for, it must still be so considered, for right here is the so-called vital force, if it has any existence at all.

The human stomach, besides being a vessel, as it were, in which a part of the earlier acts of the digestive processes takes place, in the language of physiology, "secretes" an organic principle called "pepsin," which authoritative physiology teaches to be the active principle of digestion. It appears to me that while this statement is true, it does not express the whole truth. My own conclusion in reference to pepsin, as well as all other secretions elaborated by the several viscuses, is that they evolve the force for the reproduction of the molecular forms of structure of the several viscuses themselves; for the main purpose of all organic life is its own preservation and multiplication. And with some of the simpler forms of animal life, as well as most of what are called animals in the vegetable world, the means of reproduction are co-incident with the death of the parent. And thus closely are death and life linked together in the organic world. And in these facts I find a satisfactory explanation of how the momentarily wasting molecular forms of the human body are reproduced. The stomach is demonstrated by physiology to "secrete" an organic principle called "pepsin," whose purpose, it has heretofore been conceded by all investigators, is to carry on the process of digestion. Granting this to be true, it is very evident to me that the statement does not include the whole truth, nor the main purpose of pepsin. Guided by the analogies furnished elsewhere in organic life, its main purpose is the perpetuation of or reproduction of the molecular forms of structure of the stomach itself, completing which, its force is finally merged into and appears as heat.

And it seems to me that, in so far as the processes of digestion and assimilation are regarded as due to the so-called vital

force, I have here traced physical force into vital force, synthetically, and vital force into physical, analytically, making the needed circle of the correlation of the physical and vital, and vital and physical forces complete, without finding anything, for the proper understanding of which, it is necessary to refer to the operations of a hypothetical vital force. An organic structure, incapable or not provided with the means of its own perpetuation and multiplication, would soon drop out of existence. And the mistake of histologists has been in not looking to the structures themselves for the means of their own perpetuation, rather than to an imaginary vital force.

In this way my mind was entirely satisfied that whatever modes of force were manifested in my body, to which the term vital was applied, were correlations of the ordinary physical forces, even to the preservation and reproduction of organic forms of structure. As a practical pathologist and therapeutist, the correlation of the physical and so-called vital forces was made further manifest in my ability, by means of therapeutic remedial, and hygienic agencies, to increase or decrease the apparent volume of so-called vital force in the bodies of my patients, and in a measure to control its movements. And further, that upon the accomplishment of the correlation of the physical and so-called vital forces rested the value of remedial agencies in the treatment of so called disease. I say so-called disease, because reasons will be given presently to show that disease as commonly understood is altogether a myth.

But the ultimate mystery of life I did not succeed in clearing up in my investigations.

Personally, I believe in the Bible account of creation. But the act of creation did not of necessity involve the creation of a special or vital force peculiar to life. Nor was it limited as to time. Contrary to the generally received conclusions, I find no foot prints of a Creator in either the matter or force of the human body, limiting my conceptions now to the phenomena of life as manifested by it. But I do find His seal in the marvellous molecular forms of structure evolving the phenomena of life.

Is the faculty of instinct, whether in man or the lower animals, the result of a force which cannot be explained in any other way than by referring it to an unknown and hypothetical vital force?

Instinct, that is, certain actions, by man and animals, performed independently of instruction or experience, without any end in view, but generally tending to the preservation of life and perpetuation of their kind. This I found to be a function depending on molecular forms of structure behind it; measurably perfect at birth, like sight and hearing; and, like all other organic functions, performed at the expense of structure on which it depends. It is precisely analogous to sight and hearing, brought about by physical conditions of matter, and due to modes of physical force; and is, therefore, entitled to the appellation of being vital, only in virtue of its being strikingly manifested by living beings. Instinct differs from the intellectual faculties manifested by man in this, that the molecular forms of structure evolving instinct are measurably perfect at birth, but susceptible of being added to by the incidents and necessities of life — experience; while the molecular forms of structure upon which the mental faculties depend, must be added, so to speak, to the original mass of brain matter at birth, by what is called education; oftener against the will of the recipient than with its consent, even after the stage of adult life has been passed. It is an old proverb that experience is a dear but effectual teacher, whose lessons are not easily forgotten.

And these facts explain intelligibly all of the phenomena of the physical, moral and intellectual life peculiar to different peoples and nationalities on the earth. It makes manifest, for instance, why the Eastern nations so persistently refuse to receive European civilization, arts, science and religion; and why they not unfrequently massacre, *en masse*, their propagandists, as recently witnessed in China. Studied from this point, recent events in Europe become more intelligible; and the causes of the chronic state of anarchy in the Central and South American republics can be understood; as well as the peculiar social, moral and political condition of a part of the people in parts of our own Southern States.

Empirical experience has shown that for the discontinuance of such results, human law is powerless, but a change can be brought about by education, social culture and religion, if patiently and persistently persevered in with the youth only; as no desired results follow such labors with those advanced in life.

It was, therefore, evident to my mind that even the higher intellectual faculties of the human mind presented no evidence of a peculiar vital force not a correlation of the ordinary physical forces, in all that concerns the chemical circulation of matter. That is, again, that neither in matter nor the force which gave it motion, could be traced any foot prints of a Great First Cause.

The sensory, emotional, intellectual and psychological functions, as well as the thermal and mechanical, as incidents, are coincident always with chemical changes in the molecular forms of structure, and never otherwise than in the interest of waste or decay—that is simply motion of matter; and the chemical motion of matter is common alike to organic and inorganic nature; and in it there is certainly nothing peculiarly vital. These movements, like most other effective motion in nature, proceed in secrecy and silence, and therefore escape observation, except by their results.

But HIS Foot Prints—the clear and unmistakable evidence of creative power—vitality worthy of the name—and the ideas associated with it, are seen in the molecular forms of structure evolving these wonderful results. In all organic structures, then, only ordinary inorganic matter is found present; the work of organization performed by the ordinary physical forces; the molecular forms of structure the work of the Great Architect or Creator!

Pushing investigations beyond this point, it will be seen that the whole catalogue of separate and distinct diseases pass out of possible existence; and in their place rises an orderly group of departures from the normal velocities of chemical changes in the molecular forms of structure; and other groups of lost or changed, or changing molecular forms of structure, as evidenced by changed function, together with physical peculiarities of color and contour, and increase or decrease of temperature above or below the physiological standard.

What therapeutic, remedial or hygienic agencies can, or do, do, it is not difficult to determine from these exact ideals of pathology. And it is a striking fact that the greater number only influence motion; and in their operation is again completely demonstrated the correlation of the physical and so-called vital forces. Remedial agencies, promoting or retarding the physical or chemical circulation of matter, afford just, proper and truthful

mental conceptions, reflecting back to the mind the facts of therapeutical experiences.

Over forms of structure, it is the evidence of empirical experience through all the past, that pathologists and therapeutists have little, if any, control, except their destruction by surgical or other proceedings. And to losses of molecular forms of structure are due the change in human bodies, which is called old age; for if the molecular forms of structure were maintained intact, without variations from the physiological velocities of changes of matter, or motion, human bodies would never grow old, nor man's faculties become dimmed simply as a result of passing years, or time.

Two cases, coming under my professional notice to-day (March 14, 1871,) may serve to illustrate these general principles and conclusions:

Mrs. D., aged 90. Has lost for ten days past the power of speech. Hearing and vision not so much impaired; suffers no pain; utterly refuses food and medicine, (and she is wise in regard to medicine); sleeps much of the time; passes water twice or thrice in twenty-four hours; has had no passage from bowels for ten days. Apparently recognizes her children and grand children. Has no desire to live. Pulse 30; respirations 7 6-8, per minute. Temperature not ascertained.

V. K., aged 7 months, Large, and fully developed, coughs some; is hoarse; has a flushed face; and is restless; and is druling at the mouth so as to keep his clothing wet on his breast all the time. Passages from bowels fetid; temperature, 100: pulse, 105; respirations, 24. Nurses well, does not throw up. But the parents are anxious; they fear cramp.

No contrast could be more striking than these two cases afford. In the first, function after function has failed, until that of assimilation has been included. It has been demonstrated times without number that behind these changed functions in the aged there exists fibrinous, calcareous, or fatty degenerations of the molecular forms of structure, *i. e.*, loss of molecular forms of structure. Motion in chemical changes has been reduced to its minimum, and the loss of molecular forms proceeding more rapidly; and no doubt physical death is close at hand.

In the second, motion in the interest of waste is slightly in excess of repair, as evidenced by the temperature, breathings,

hoarseness and leakage from the mucous surfaces of the mouth, with retention of the results of tissue metamorphosis, or dead matter. In this latter case, a saline purgative, (calcined magnesia, in this instance,) repeated two or three times in as many days, can hardly fail to give exit to the retained results of tissue decay, and thus remove the impediment in the way of repair, with a speedy equilibrium of repair and waste which will be evidenced by returning health, (since realized.)

I therefore conclude, that when the human body is studied, as any other problem in nature is studied, on the known facts concerning its physical organization, the correlation of its hitherto regarded special vital force, or forces, with the ordinary physical forces will be fully demonstrated.

Second, That each histological structure in the act of decay, and the performance of its special function in the general economy of the human body, as a totality, or unity, stores up in one or more of the chemical compounds then formed, the necessary force for its own reproduction and perpetuation, in obedience to chemical and physical law.

Third. That reproduction must, to perpetuate any organic structure, or existence, be in detail, molecule by molecule, and not in bulk, or gross, and at once.

Fourth. That only in the molecular forms of structure of the human body, and not in physical contour, material itself, or chemical motion in material, can the foot prints of a Great First Cause, —a Creator, worthy of adoration, be unmistakably discerned.

Fifth. That its mechanical, chemical, thermal, sensory, emotional, intellectual, and psychological phenomena, are functions simply of its truly marvellous molecular forms of structure, and though differing so widely, these have a material in common,—made of one stuff.

Sixth. That the foregoing conclusions do away with the necessity for referring any of the phenomena of life to a special vital force.

Lastly. That the sensation common to all its structures, demonstrates its unity; and consequently, the impossibility of the existence of any specifically distinct pathological states, and the most urgent necessity for simpler and truer views or ideals of its physiology, dynamics, pathology and therapeutics.

ARTICLE IV.—*Cases from the Note Book of Service in the Medical Department of the U. S. Army.* By CHARLES M. CLARK, M.D., late Surgeon 39th Ill. Vols.

Two interesting cases of sudden death commencing at the heart.

First: Calcareous degeneration and deposit.

Second: Ossification and growth of bone.

CASE I.

History of Case. Solomon Blank, private 176th Penn. Vol. Infantry, aged 35 years, with large, muscular adipose development —formerly a brewer by occupation. Had been sick in regimental hospital at St. Helena Island, S. C., for some ten days, with an attack of acute rheumatism, as the assistant surgeon in charge informed us, and he had been treating the case with tr. aconiti radicis (fort.) in full doses, for several days, and in fact up to the time of death, which was very sudden and unexpected by him.

On the 20th day of February, 1862, Dr. Forbes, of the 67th Ohio Vols., and myself, were ordered by the Medical Director to make post-mortem examination of the body in order to ascertain the cause of death, for the reason that many of the officers and men of the regiment were disposed to think that the doctor had poisoned the deceased, and were threatening him with violence.

Autopsy. Six hours after death. The body was well nourished and presented fine physical conformation. The examination was chiefly directed to the organs of the thoracic region. The lungs were found adherent in many places to the costal pleura, the result of old inflammations, otherwise they were healthy.

The heart was found *in situ*, but one-third larger than normal. The pericardium contained an excess of fluid, and was adherent on all sides, and especially so, to the diaphragm. All the vessels leading from the right side of heart were undergoing the process of calcification, and the descending vena cava was especially remarkable for the extent of calcareous deposit, so arranged that it bore a striking resemblance to the trachea with its circular rings.

Within the endocardium of the right auricle was found a chalky mass the size of a large peanut, and resembling it in shape.

Other and smaller deposits were found in the substance of the right ventricle. The left side of heart was found hypertrophied and full of clots. The walls of the right ventricle were thin and completely studded with points of calcareous deposit.

This large deposit weighed seventy-three grains. The abdominal viscera was not examined, as it was thought sufficient cause for death had been found.

It is scarcely necessary to remark that the immediate cause of death was paralysis of the heart's function by the excessive use of tinct. aconite rad., given in full dose every third hour and continued for the space of four days. The remote cause of death was certainly plain enough, and gave us sufficient reason for exonerating the medical officer.

We afterwards learned that the deceased had been subject to acute attacks of rheumatism, more or less, for the past fifteen years. He was a German by birth, a brewer by occupation, and a great beer drinker. What connection there is between excessive use of malt liquor and chalky and ossific deposit within the heart, I will leave your readers to reflect upon after the narration of—

CASE II.

History of Case. Theodore Lott, private Co. F., 39th Ill. Vol. Infantry, age 44 years, German by birth, 5 feet, 8½ inches in height, light complexion, blue eyes, sandy hair, weight 196 pounds, and formerly a brewer by occupation.

June 4th, 1864, he was detailed for picket duty at the front, at a time when our advance was within six miles of Richmond, and remained on duty until the evening of June 5th, when the company was relieved from duty. While returning to their quarters, the enemy opened a brisk fire and they were double-quicked to camp, a distance of three-quarters of a mile.

He had complained during the day of not feeling very well, and on reaching the intrenchments, fell down and immediately expired. He was buried the same evening by order of the acting surgeon in charge of the regiment, who reported his death as one from "heat apoplexy."

On learning the history of the case, I had the body exhumed on the morning of the 6th, and conveyed to the field hospital where I made the

Autopsy at 3 P. M., June 6th, 1864. The body was still flexible, no evidences of "rigor mortis." There was extensive ecchymosis of head, face, neck and abdomen. After making the usual incisions for displaying the organs of the thorax and turning up the sternum, I was surprised at the amount and degree of the adipose material which covered everything like an apron, and was fully one-eighth inch in thickness over pleura and pericardium. The pericardium contained some fluid, but not sufficient to be considered abnormal. The lungs were perfectly healthy. The heart was found in position but greatly enlarged. Applied ligatures to all the vessels and removed the organ. In making incision through the walls of right side of heart, I found the right auricle very thin and paper-like, with fatty degeneration of the muscular fibre. The ventricle was in the same condition, and I could penetrate the wall with my thumb and finger by merely pinching it up. The semi-lunar valves were imperfect, as also the mitral. The left auricle was found thin and soft; the left ventricle hypertrophied.

On making incision through the aorta, my knife came in contact with a hard bony substance, and on examination, I found a well organized bone, shaped similarly to the "os coccyx," and having its attachment to one of the sinuses of the aorta. It measured one and one-half inches in length and three-fourths of an inch in circumference at the bone. It tapered gradually upwards, being nodulated at its centre and again at its terminus, and was so placed that its extremity rested within the axis of the aorta. The aortic valves were undergoing ossification.

The organs of the abdominal cavity were in healthy condition with exception of the kidneys. The mesentery was loaded with adipose.

The immediate cause of death in this case was apoplexy of the heart, caused by this impediment in the aorta, and the condition of the aortic valves.

The heart became distended with blood from the impetus given the circulation by reason of the fright and violent exercise, and it being unable to dispose of the unusual influx, there resulted paresis of the muscular fibre, and death.

ARTICLE V.—*Emboli.* By WALTER HAY, M.D., Chicago.

Mrs. P——, (104 Forquer street,) aged about 35 years; multipara; about two years since had a miscarriage accompanied by severe hæmorrhage, about six or eight weeks subsequent to which, she came under my professional observation. Her appearance and history indicated the existence of perfect health prior to the accident just mentioned. Her condition, when first seen was characterized by anæmia, great prostration of strength, dyspnea, (increased in the horizontal position) coldness of extremities, increased vaso-motor energy (indicated by diminution in the calibre of the arteries and hardness and sharpness of the pulse), diminution of the respiratory murmur, and the presence of dry râles throughout the lungs, increased irritability and debility of the heart, with bruit de soufflet at the base, bowels acting nearly normally, slightly constipated, urine loaded with amorphous urates or soda and ammonia, with some purpurine (no albumen), frequent, short dry cough.

We have here, in the presence of the abundance of urates and purpurine in the renal secretion, and in the diminished temperature, the evidences of deficient oxydation, as a proximate cause of which, we recognize the decreased blood-supply to organs resulting from diminished caliber of the arteries, and the pulmonary engorgement, lessening the respiratory surface and impeding the free interchange of gases in the lungs. For the next step in the chain of causes, we must look to the disturbance in the co-ordination between respiration and circulation; the blood was returned to the lungs by the right side of the heart, in excess of the capacity of the left side for its removal and transmission through the systemic circulation; this increased carbonization of the blood moreover perpetuating itself by its reaction upon the nervous system. We are thus led to the last in the series of pathological lesions, the primary cause of the whole,—regurgitation from deficiency of the aortic valves.

The therapeutic indications suggested obviously by the above analysis, were to increase oxydation and hence excretion,—which necessarily involved increase in the blood-supply to excretory organs, and this could be effected only by adjusting the disturbed

equilibrium between cardiac and arterial action, *i. e.*, by diminishing arterial and increasing cardiac energy.

To this end, the following formulæ were prescribed and administered:

℞. Tinct. Opii, - - - } āā gtts. xxx.
Tinct. Digital. Pur., - - }

Every four hours, and

℞. Potass. Iodid, - - - - grs. viii.
Syr. Scillæ, - - - - - ʒj. M.

Every alternate four hours.

At the end of eight days, treatment was discontinued, the patient resuming her usual avocations.

Since the time above referred to, this patient has had five or six seizures, almost identical to that already described, in which the same plan of treatment yielded similar results.

Six months ago, exposure to wet induced inflammatory action in the pleura of the left side, followed by considerable effusion, which was arrested and removed by Hydrarg. Chlor. Mit. gr. ss., Pulv. Scillæ Mar., grs. ij, every four hours; and a blister to diseased side, followed during the subsidence of the inflammation and the process of absorption, by Lugol's Solution applied externally, and in five drop doses every six hours, internally.

March 13, 1871. Found patient in a similar condition to that described in the beginning of this report, and into which she had already several times relapsed, which condition yielded to the treatment already described in the same connection by the 16th, when she was again discharged.

March 27, 11 A. M. Patient had passed sleepless night; the countenance was anxious, the extremities cold, the pulse small and hard and hurried, the breathing difficult, there was frequent, short dry cough, the tongue was moist and coated with dead epithelium, the bowels were constipated, there was great nausea, the urine, when cold, depositing urates copiously, the respiratory murmur was replaced by dry râles, the heart's action was tumultuous, resembling the irregular roll of drum, the relations of sounds could not be distinguished; the patient complained that her heart was "*squeezed.*"

Diagnosing endocarditis, directed Hydrarg. Chlor. Mit. gr. ss.,

Pulv. Scillæ Mar. grs. ij., every four hours, and the precordial region to be painted with Lugol's Solution.

March 28, 11 a. m. Bowels had been evacuated five or six times, urine more copious, paler and clearer, the urates disappearing under the increased supply of oxygen; pulse larger, softer, slower; breathing more free, some moist râles perceptible; "*squeezing of the heart better.*" Treatment of yesterday to be continued, with six hours interval between doses. Ten drops of Lugol's Solution every alternate six hours.

March 29th. Symptoms of yesterday all favorably modified; continue treatment.

March 30th. Slept well last night, feels much better; symptoms all improved; turns upon either side easily. Omit pills, continue Lugol's Solution. Feels some soreness about right shoulder extending from middle of clavicle to middle of deltoid muscle, which she attributes to pressure, as she lay upon that side last night.

March 31st. Right arm swollen to an enormous size from shoulder to ends of metacarpal bones; mottled with purple blotches, cold, pulseless at wrist and axilla; great tenderness from middle of clavicle to insertion of the deltoid, the region of greatest intensity being lower border of axilla.

But one cause could be assigned for this condition, the arrest of the circulation in the subclavian by an embolon. And this diagnosis was confirmed by Dr. Morris J. Asch, U. S. A., who was kind enough to examine the case with me. Upon this hypothesis, the therapeutic indications appeared to be, to sustain cardiac and to diminish arterial energy—that the impacted mass might thus be driven farther away from the center of circulation, and the area deprived of its blood-supply be diminished, in the hope of gaining time for the establishment of collateral circulation; to this end, Tinct. Opii, Tinct. Digitalis, pur. āā, ʒ ss., and Lugol's Solution, gtts. x, were given every alternate four hours; the arm being kept wet with a solution containing Plumb. Acetat, grs. x; Tinct. Opii, ʒ j, to the ounce of water, and enveloped in cotton wool.

The condition of the patient gradually improved under this treatment until April 4, when the circulation of the arm was fully re-established, and the limb diminished to nearly its normal size.

April 5, 11 A.M. Pain and tenderness in the middle of the left forearm; hand and wrist slightly swollen and cold; pulse, at axilla, feeble, at bend of elbow and wrist entirely absent; dry râles in lungs. The treatment of the 31st ult., etc., which had been partially discontinued, was resumed, with addition of Syr. Scillæ, ʒ j, to each dose of the opium and digitalis.

April 7, 10.30 A.M. Circulation in both arms normal; respiration freer than at any previous period in the history of the case; general condition much improved, no bad symptom remaining except tumultuous action of the heart. Left patient at 10.52 A.M. in excellent spirits, laughing; at 11 (within eight minutes) she was dead. There was not the slightest struggle or motion. Was the aorta obstructed by a clot? No autopsy permitted.

169 Dearborn street.

ARTICLE VI.—*Case of Punctured Wound of the Brain—Recovery.* By C. T. FENN, M.D., Chicago.

S. M. G., a robust boy, aged three and a half years, fell from the top of a fence three and a half feet, striking his head on a rusty nail fixed in a post that lay on the ground. His cries brought relief. It was found that the head and free portion of the nail, one inch in length, was driven directly through the skull near the posterior superior angle of the left parietal bone. The child's head was fixed to the post. A half hour later the puncture was probed to the depth of one inch, and hair and spiculæ of bone were extracted. There was little evidence of shock. A light cold wet compress was applied and kept in position for one week. This was the only treatment. No morbid symptom followed the injury. The child played, ate, and slept, with as great vivacity as before. The wound soon presented granular edges, but remained open and discharged freely for several days. Sept. 29th, nine days after the accident, he had a convulsion. The sole cause appeared to be a slight diarrhœa, with slimy stools. A few doses of Dovers powder were given to check the diarrhœa. Af-

ter this nothing occurred. The wound was entirely healed in twenty-two days—the surface having been carefully kept open to the last.

It is to be observed that the effect of concussion was comparatively slight, modified, perhaps, by the perforation of the skull. The results of inflammation of the brain were certainly averted by the free opening which was maintained.

Epistolary.

My Dear Professor:

We have just returned home physically exhausted, having been engaged in a gigantic struggle to wheedle, or persuade several of our patrons to shell out, and give us something more substantial than air to live on; but, as they remain obdurate, and can't see it in our light, we are obliged to accept the situation, and hence refresh ourselves by reading the discussion on metro-peritonitis and opium, as published in the last two numbers of the Journal. As we feel in a proper mood to do almost anything desperate, and as we do not feel particularly interested in the controversy, we adopt the rôle of most intermeddlers, under like circumstances, and pitch in; firstly, because our mental irritation is such, that a literary stimulus is necessary; and, secondly, because, in this glorious, and enlightened free republican government of the U. S. A., fair play is a jewel. And we don't like to see two on one. So, figuratively speaking, we take off our coat, roll up our sleeves, put on the gloves, and call time.

First Round. *We do not believe the case one of metro-peritonitis, and hence a false diagnosis.*

A celebrated accoucheur and physician in England (Clark), many years ago, established a rule that, no puerperal woman was to be considered safe, so long as the pulse kept up to 100; not that disease actually existed, but that it was a guide to keep our attention alive to the probabilities. In this patient, the symptoms were entirely too inconstant and disconnected, too vague

and ephemeral, for us to build a certain diagnosis upon; true, subjectively there was great pain and tenderness upon pressure, but the rational symptoms were far too mild, and disappeared too suddenly, even if the area of inflammation, supposing that any did exist, was confined below the superior strait. The pulse but once, the second day, ran up to 110, falling the next to 100 or less, and never again rising above that standard. The condition of the circulation is the most certain guide, not only to treatment, but of the pathological condition of the patient, and we affirm that, very few cases of peritoneal inflammation are treated with a pulse less than 120, but much oftener 140, or even 160, *never* full and bounding, *always* hard and jerking. There are not many obstetrists but have witnessed within the first three or four days after labor, cases of high nervous excitation, attended by pain and tenderness, abdominal distention, deficient secretions, etc., etc., so alarming at the time, especially if connected with perversions of intellect, as to give the greatest anxiety, and lead to vigorous measures for their suppression; but, no matter what the treatment, provided it be not heroic, as the condition is transitory, they soon subside,—the milk begins to secrete, and in a few days safety is secured.

In the case under consideration, the trouble began on the 20th with very severe symptoms, but on the 22nd inst., at 2 o'clock in the morning, having slept from 11, just *three* hours,—and how she got even this much rest, with two or three grains of opium popped into her every half hour, the Lord only knows,—she awakened *bright*, *intelligent*, and *feeling well*, and would have convalesced from that moment, only 44 hours ill, had not the stupid nurse, unmindful of the attending physician's directions, given, at intervals, *six* grains more, which produced immediate narcosis, though she had already within her 123 grains. But just here, our doctor fortunately recognized the power of the six grains, and with consternation in his face, and coat tails at right angles to the small of his back, fled incontinently to seek guidance and advice from his *confrères*,—a thing he had done several times before under similar cases of opium-poisoning—or rather when "the indications were more than met,"—and by continuous injections of atropine hypodermically, etc., etc., brought his patient through, or, to use his own expression, the alarming symptoms

"quickly disappeared with appropriate treatment," *i. e.*, by the very antagonist of opium.

Right duke well thrown up from the hip, alighting square between his blinkers; claret flowed briskly; and went to grass. First blood, and knock down for us.

Second Round. *Not being a case of metro-peritonitis the amount of opium claimed was never given, the patient being now alive.*

We all know, that in severe inflammatory diseases of serous membranes, especially if the uterine tissues be involved, the nervous system becomes so obtunded,—and we use this word as not incompatible with hyper-irritation,—that secretion, digestion, absorption, etc., are almost completely arrested, and that large doses of powerful drugs may be given without producing their full physiological effects, not because the nervous system cannot be awakened to their influence wholly, but mostly because they cannot be absorbed into the circulation. Many authors tell us that, in such diseases as tetanus, hydrophobia, chorea, etc., where formerly large doses of opium were administered in the solid or crude form, the microscopic revelations showed quantities of this drug in the stomach (and bowels), undigested and almost untouched, and hence recommended it to be given in the fluid state, as much more likely to reach the nervous centers. Of course it is astonishing how much opium may be forced upon an unfortunate, but the astonishment will very materially lessen, when we feel assured that the larger portion will remain as inert as just so much putty, and to prove that this tolerance arises in the main from this physiological fact, we have only to inject the ordinary doses into the venous circulation, to acknowledge how promptly it will produce its effects, and how dangerously too, if we dare push the remedy to extremes. We were an *interne* in Bellevue Hospital about the time that great and justly celebrated medical philosopher, Prof. A. Clark, was carrying out his treatment in peritoneal disorders, and had several cases under observation in the lying-in ward of our senior and others, but the patients died notwithstanding, and no more conclusive evidence of its failure can be adduced, than the simple fact that, though recommended by such high authority, it has been generally discarded

by the profession, and, if we mistake not, is not now employed in Bellevue, the cradle from its birth.

Understand, we do not mean that opium is discarded, but only its abuse—always abuse in such heroic doses. One hundred grains in the hands of Dr. Clark, is a very different affair from the same amount in the hands of less skillful men; the vast experience of the one, his powers of analysis, his quick and accurate observation, would teach him how to use it, and where to stop; while, in the case of others, they would only court Death, and when he *came*, would hardly know whether at the bidding of the disease, or the doctor.

> "Mihi jam, non regia Roma,
> Sed vacuum Tiber placet."

Chomel, a very celebrated French physician, left us a wise morsel of advice when he said, "in the practice of medicine, if you can do no good, be certain to do no harm," and this is the key-note to the practice of every sound and intelligent medical man.

Left bunch of fives straight from the shoulder; caught his potatoe-trap sharply; abundance of the ruby; and again went to grass.

THIRD ROUND. Our doctor thinks the following proposition should become an axiom: "*If indications are scrupulously met in treatment, no drug-poisoning, with its disagreeable and dangerous perturbations, will occur, however large the dose of the drug may be.*"

Violent attack, defended by the following paraphrasis: *However large the dose of the drug may be, if the symptoms of poisoning are scrupulously met, with all their disagreeable and dangerous perturbations, by giving still more of the drug,* (similia similibus curantur), *the patient will certainly "go under," or the drug is not worth one cent.*

Last round fearfully scientific; a rally; doctor thrown by a cross-buttock, and back broken; time called, no response; and sponge thrown up.

In this playful sketch, you will perceive, we have not attempted to give a history of metro-peritonitis, or the differentiation between the symptoms of this disease, and opium-poisoning, as it would

take up too much time, and any text-book will supply the deficiency; but we wish to advert to our point, the different methods of dying under these two conditions, the first by asthenia, the last by apnœa. As the pulse never ran above 100 but once, and fell next day, and as no indications of sinking were at any time apparent, it would seem as if the heart was capable of holding its own; but, at the end of 44 hours, with 123 grains of opium, and six more as the *coup de grace*, and "the indications being more than met," it does seem highly probable—to a man up a tree—as if the respiratory function was about to be extinguished. And, again, as opium is a stimulant narcotic, the "therapeutical paradox" is not very clear; stimulant at first, sedative still later; then why quibble about cardiac action as contradistinguished from arterial?

That *savan* down in Indiana did no good by putting in his small paddle; it was a very "pretty quarrel as it stood," to quote Sir Lucius O'Trigger—and all in the world he effected, was to demonstrate more conclusively that the necessity *does* exist for every physician to strive to arrest such heroic practice among the people.

A very large proportion of new beginners adopt much from the various medical journals, and it is only after a very sad experience that they recognize such fallacies. Our Indiana friend had better come up, and spend *one* more session, probably he would absorb more correctly the teachings of the "Rush Fathers," and not suppose, because they enunciated a general truth, they were to be held responsible for all its perversions.

To finish, we desire to say a few words about a curious article on the "Doctors of Chicago," published a few weeks back in the Sunday Times. We say curious, because the writer, evidently with a praiseworthy desire to serve the profession, and furnish an item to his paper, has been led into gross partiality, and has done manifest injustice to many noble men. His apologetic remarks in a measure explain this away, but he should never attempt to write on any subject of which he has so limited a knowledge, nor to draw his inspirations from a weak, interested triangle, who, taking advantage of his good nature, and under the influence of several nips of "Red Eye," induce him to sing their praise, and the seeming merits of their friends. Should

this gentleman ever desire to write a thorough and truthful history of the "Doctors of Chicago," we beg him to call upon us, as we are comparatively new comers, with no interests to serve, no axes to grind, and hence can give him impartial statements without guile or malice. He must first recognize the fact, that the physicians of this city are counted by the hundreds, but the learned and highly educated among them by the units; and there probably exists no city on the face of this globe, of so large a population, with so many incompetents, and so many foisted into high positions through social, church and monied influences, but whose reputations, as scientific men, are purely factitious. He knows well enough that, to become an efficient practitioner, requires a literary, classical and scientific foundation to begin on. You cannot build an enduring superstructure on quicksand, nor make a silk purse out of a sow's ear,—and without this, the majority of physicians must degenerate into mere routinists, and treat their patients mechanically, just as a carpenter would repair a table, or a tinker mend a pot. Of course they look so wise, use so many technicalities, spout so many platitudes—and the more ignorant, the more they do this—that the credulous public swallow unresistingly their doses, and form their estimate of the parties' worth from their own braggings. Why, my dear sir, you have barely touched the merits of some of the most eminent men of this country; some of vast erudition, ripe experience, and most comprehensive minds not even named; while on the other hand, you have overdrawn, and given the most florid descriptions of a certain class, recognized as distinguished only by themselves, or their adherents, and by all others as rather inflated egotists. Let us examine the record, and in a few words touch up your pictures.

First comes that "small, restless phantom in black" . . . complex prescriptions . . . . no alcohol, but lots of tinctures . . . . political harangue . . . . temperance exhortation.

Second comes the "uterine madman" . . . . dark grim looking cannon . . . . down *she* goes, . . up *it* goes, ... female humanity.

Third comes the "pretty man with the big feet" . . . the *soi disant* successor of Brainard (*E pluribus unum*, *vide*

N. Y. Independent) . . . . church interests . . . . cupidity . . . . public notice . . . . morbid taste . . . . . court room . . . . arsenic . . . . tail between his legs.

With these representatives of the three great branches of our science (or art), medicine, obstetrics and surgery, we must stop, for we have not only taken too much space, but if we go on at this rate people will begin to think us ill-natured or prejudiced, when in fact, we know none of the parties, and have formed our opinions upon their publicly recognized traits.

But to still further advise the writer, or any other wishing to write up the doctors, he must again remember that they are divided into rings or cliques—the hospital cliques; the college cliques; the society cliques; and the outside cliques—each damning the other collectively and individually, and to obtain anything like accurate *data*, each must be consulted as to the merits of its various members, and then each member individually to recount his marvellous cures, incomparable remedies, and extensive experience, and about the time he has completed this augean labor, and gotten pretty well mixed up, he will find himself in that bewildered state of the rustics, as described in Goldsmith's Deserted Village, when—

> "With words of learned length, and thundering sound,
> The gaping Poliuto stood, and gazed around,
> And as he gazed, still the wonder grew,
> That DEATH warn't *kilt* by this sapient crew."

My dear Professor, it is time to bring these ramblings to a stop, and before so doing to offer some extenuation for the small amount of venom distilled from the point of our pen; but we have said to you before, that it is partly our province to attack and endeavor to correct—by censure or praise—the hollowness, the cant, the hypocrisy, and the pretensions of many medical men in these regions, and if they will not take warning, and strive to amend their ways, we shall prod them again and again, hoping that in the long run, the very sense of shame and respect for public opinion may compel a stricter observance of the rules of our code, and a kinder regard for the rights of others. The moment any man convinces the profession that he is capable, honest, and a

true gentleman, none will be found to indorse him, and wish him *bonnie fortune* more earnestly than ourselves; but just let him try the other tack, and, swelling up with the consciousness of possessing a little money, or assuming an importance to which he is in no way entitled, continue to play the "tricks of the cur," we shall immediately prick the pompous wind-bag, and every time the occasion forces us to thrust, deeper and deeper shall be the wounds. With this explanation, and the last one, we make our parting bow.

"VIATOR."

CHICAGO, April, 1871.

Editor's Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN & COOKE, whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

Chemistry: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. A Manual on the General Principles of the Science and their Applications to Medicine and Pharmacy. By JOHN ATTFIELD, Ph. D., F. C. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc., etc. From the second and enlarged English edition. Revised by the Author. Philadelphia: Henry C. Lea. 1871. Pp. 552.

A very convenient manual for students of medicine or those engaged in practical pharmacy. A comprehensive index, containing 5,000 references, gives every facility for speedy consultation and investigation of any desired topic.

Minnesota as a Home for Invalids. By BREWER MATTOCKS, M.D., President of the Board of Health, St. Paul; Physician to St. Joseph's Hospital. Philadelphia: J. B. Lippincott & Co.; St. Paul, Minn., D. D. Merrill, Randall & Co. 1871. Pp. 200. From Cobb Brothers, Lake street.

The author aims to present to the public, so far as able, the views of the medical profession of the State of Minnesota as to its advantages as a climate for invalids. The meteorological observations are those reported for the Smithsonian Institute. So much has been said about Minnesota as a place of exile for a certain class of invalids, that this little book is both seasonable and valuable, and should be in the hands of both physicians and patients interested in the subject.

Insanity and its Treatment. Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. FIELDING BLANDFORD, M. D., Oxon., etc., etc. With a Summary of the Laws in force in the United States on the Confinement of the Insane. By ISAAC RAY, M.D. Philadelphia: Henry C. Lea. 1871. Pp. 471.

We can recommend this work in warm terms as containing in compact form and concise terms a large amount of valuable information. The Appendix by Dr. Ray is practically useful. It is some consolation to find that Illinois is not alone in the possession of atrocious usages necessarily sequent to atrocious laws regarding the commitment of the insane. When, O when! will the people cease to send their supremest donkeys to be their legislators?

U. S. Sanitary Commission Memoirs. Surgical. Second Vol. Edited by Prof. FRANK HASTINGS HAMILTON. New York: Published for the United States Sanitary Commission, by Hurd & Houghton. Cambridge: Riverside Press. 1871. Pp. 580, and chromo-lithographs.

The first surgical volume of this series was noticed last year, (JOURNAL, 1870, p. 436.) The present volume contains:

I. Analysis of 439 Recorded Amputations in the Contiguity of the Lower Extremity. By STEPHEN SMITH, M.D.

II. Investigations upon the Nature, Causes and Treatment of Hospital Gangrene, as it prevailed in the Confederate Armies, 1861–5. By JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, New Orleans. Formerly Surgeon in the Provisional Army of the Confederate States.

PAMPHLETS.

Proceedings of the American Pharmaceutical Association, at the Eighteenth Annual Meeting held in Baltimore, Md., September, 1870. *Also the Constitution and Roll of Members.* Philadelphia: Sherman & Co., printers. 1870. Pp. 352.

Copies of this quite interesting and valuable volume can be procured of Mr. Louis Strehl, 62 State street, Chicago, who is the State agent for the association.

Report of the Special Committee of the Medical Society of the District of Columbia, upon the Claims of Homœopaths and other Irregular Practitioners for Professional Recognition in the Medical Service of the U. S. Government, and the Charges brought by the Homœopaths against the U. S. Commission of Army and Navy Pensions. Published by Resolution of the Society.

Twenty-Second Annual Announcement of the Woman's Medical College of Pennsylvania, 1871–2.

Tenth Annual Report of the Board of Managers of the Woman's Hospital of Philadelphia, Jan. 1871.

The Study of Dermatology. By Louis A. Duhring, M.D., Physician to the Dispensary for Skin Diseases. Philadelphia. Pp. 12.

Atlanta Medical and Surgical Journal. Edited by W. F. Westmoreland, M.D., Professor of the Principles and Practice of Surgery in the Atlanta Medical College, and J. C. Westmoreland, M.D., Professor of Materia Medica and Therapeutics in the Atlanta Medical College. April, 1871.

This is numbered as the first of vol. nine, it being, if we mistake not, the third resuscitation of this Journal. We wish better luck for it hereafter. Published monthly, at $3 a year.

The Virginia Clinical Record. A monthly Journal of Med. Surg. and Collateral Sciences. M. W. Hazlewood, publisher, Richmond, Va. $1 per annum.

American Journal of Microscopy. Devoted to the Elucidation of Scientific and Popular Microscopy. E. M. Hale, M.D., editor; G. Mead & Co., publishers and proprietors, 182 Clark street, Chicago. $2 per annum; single copies, 25 cents.

Several months since, a periodical under this title was started in small quarto form, rather cheaply gotten up. Its success, however, was such as to encourage the publishers to put it in better shape. The result, is the neat monthly now before us, which we take pleasure in recommending to the patronage and support of all interested in the subject.

M. or N. Similia Similibus Curantur. By J. G. Whytte Melville, author of Kate Coventry, etc., etc. New York: Leypoldt, Holt & Williams, 25 Bond st. 1871. Pp. 159.

This is not a medical work as its motto would suggest, but an effort to show that a wound by one of Dan Cupid's arrows can be cured by another. The illustration in its way is successful. The old love is cured by a new one, as an old suit of clothes is well replaced by a later fashion and make; or as the loss of an old five-dollar greenback is materially alleviated by finding a spick and span new one of the same or a higher denomination.

Fertility of the Native Americans of the Present Generation. By H. O. Hitchcock, M.D., of Kalamazoo, Mich. Read before the Kalamazoo Med. Association, March 14, 1871.

This is one of the best arguments we have yet seen attempting to prove that the Native American (not Aboriginal) stock is wanting, and constantly diminishing in fertility. Dr. H. is not the first who has lugubriously exclaimed, *O Tempora! O Mores!* Not the first who has mourned (and proved) the degeneracy of these latter days.

[Privately—in spite of our Lowell namesake's essays, and even this now before us, we don't believe a word in the doctrine—Hush—h!]

Editorial.

Our Indiana Friend

Wants to know what the Senior Editor's private notions are about the use of opium in metro-peritonitis, etc., etc. The Senior Editor has not the slightest objections to advance them publicly or privately.

With regard to the case referred to, he does not believe it was one of metro-peritonitis at all, and has strong suspicions that the same case has figured in a published report of opium-poisoning cured by belladonna. But these minor blemishes may be put up with.

When any physician uses alcoholic stimulants, veratrum viride, lobelia, capsicum, opium, quinine, oil of sassafras, hydrastis, or any other member of the materia medica, large or small, as a specific, or under the governance of some crude theory of its *modus operandi*, without positive reference to the essential relation of the medicine to the pathology of the particular case, he practices a bald empiricism which no repetition of successful results can entitle to a higher designation.

We have in our time opposed excessive blood-letting (Paine-ism), excessive stimulation (Toddism), excessive quininism, excessive sedation, excessive narcotism, etc., etc., with equal zeal and confidence of sound philosophy, as when laughing at the puerilities of homœopathy, or cautioning against the noisy claims of advertising knaves.

Let all things be done decently and in order. Opium is a priceless boon to suffering humanity. In the hands of the judicious physician it is capable of achieving the highest triumphs of the art—in the hands of the beetle-headed believer in its being "good for metro-peritonitis," or any other disease, it is capable of peopling, with admirable dispatch, the most capacious graveyards.

No remedy with which we are acquainted has a *single* physiological, or pathological, effect in its application to the human body under its infinitely varying conditions.

One man's *medicine* is another man's poison. Nay, it may be poison to the same man at a different time. What is "good for" any given change of the normal order in the system, is that which will restore that normal order—be it the order of function or of those integral changes upon which the manifestation of function depends.

All sedatives are capable according to their application of proving stimulant. All stimulants are capable of producing sedation. The most familiar illustration of this is in the physiological effects of cold and heat. To the sense totally dissimilar, yet in fact capable each of producing sedation, each of producing stimulation.

This is a general law, necessarily including all influences, whether of matter or force, operating on the human body.

Opium well illustrates this law. According to its application it is capable of increasing the amount of tissue change (stimulation), or of diminishing the same (sedation.)

Were this all, we could, perhaps, lay down pretty close rules for its administration. But, unfortunately, this touches only the edge of the matter. The body is an aggregate of dissimilar parts, each largely dependent on the perfection of operation of every one of the rest, for its own right action.

How it should happen that any single, so-called, medicine should agree with more than one person, is more to be wondered at than the opposite. Opium in any form, or any of its derivatives, causes the writer unmixed misery, but some of his professional friends are transported by its influence to an Elysium of happiness with clear consciences and breaths void of whisky.

There was a dapper little Frenchman who crossed Niagara, again and again, on a tight rope, pirouetting and capering, meanwhile, to the admiration of all beholders. Safe enough for Monsieur Blondin who knew the ropes and the balance, but tolerably unsafe, we opine, for the majority of the bystanders.

So, when Messieurs Blondins—Paine with his lancet, Todd with his brandy, Clarke with his opium, Norwood with his veratrum viride, Lente with his calomel, *et alii*, *et al.*, play fantastic tricks before high heaven, we will religiously presume it is safe enough for them—but for the rest,—*Timeo Danaos!*

The tools for those who know how to use them, said the First Napoleon. If you know your tool perfectly, even though it be opium, or that other concoction "nameless forever here," and if you know exactly what change is desirable in the diseased body, why, "Lay on, Macduff," and M.D—d be he who first cries "hold, enough"—that is, if your patient holds enough.

If our opium Blondin knows exactly when he not only lessens the unnecessary tissue metamorphosis in the affected organ, but dangerously diminishes it in sound organs, he will probably have sense enough to stop it. The bystander, with his head full of crotchets instead of sense, will never see this point, but will crowd the opium.

Control pain? Of course. Retard destructive metamorphosis? Yea. By opium? Most certainly, if possible. Regardless of dose? Yes, but *not* regardless of common sense. Dear Brethren—do continue the good work of mixing your medicines with brains, before you force them down the throats of the unfortunates committed to your charge.

Recurring to First Principles.

In a case of delirium tremens (diagnosed, by the way, as cerebritis) in a well known eleemosynary institution of this city, the *interne* caught a live chicken, split it open, and applied it, still warm, to the patient's abdomen as a poultice. Both the patient and the chicken died—the interne—he of the Washingtonian Home—recovered. 1871. Mark, time!

Across the Continent.

At the present writing, many of our brethren, anxious for the elevation of the profession, are bravely fronting the dangers of the Pullman Palace Cars, bad champagne, and worse whisky. Let them go, surrounded by the halo of a righteous cause, and protected from harm by the viewless legion of our best wishes. When they arrive at their destination and enter upon the discharge of their onerous but honorable duties, they will still be held up on the broad shoulders of our devotional petitions.

We trust they will steadfastly determine to make the association a scientific society, and not a mere trades-union or professional criminal court.

We trust they will let alone the work of the medical colleges, which is emphatically none of their business, and endeavor to have their membership keep out of the way of the majority of the medical students.

We trust that, individually, they will receive, "mark, learn and inwardly digest" the truth, that the great reason why the medical profession fall below their appropriate position in public estimation, is not because the colleges do not furnish pabulum enough for the neophytes, but because both the neophytes and full grown doctors are wanting in that primary education and generous culture, without which the most fertile soil of mind is more productive of weeds, of false and distorted views, of unphilosophical assumptions and absurd practices, than of that clear and accurate thought which makes the medical man strong in himself, and a power in community which will everywhere be respected. Educate from the beginning. Look out for the roots, and the branches will take care of themselves.

Medical and Surgical Memoirs. By JOSEPH JONES, M.D., Professor of Chemistry, Medical Department, University of Louisiana. (In Preparation.)

This work will embrace the investigations of fifteen years, into the Causes, Geographical Distribution, Natural History and Treatment of Intermittent, Remittent and Congestive Malarial Fevers, Yellow Fever, Typhoid and Typhus Fevers, Small Pox, Spurious Vaccination, Measles, Pneumonia, Diarrhœa, Dysentery, Scurvy, Tetanus, Cerebro-Spinal-Meningitis, Diseases supervening upon gun shot wounds, Pyœmia, Hospital Gangrene, Erysipelas, etc., etc.

The results of the investigation of the diseases of the Confederate Army, during the American Civil War, 1861–5, will occupy a prominent portion of the work.

These investigations have been prosecuted unremittingly during the past fifteen years; and the author proposes to lay the results before the medical profession, as soon as a sufficient number of subscribers have been obtained.

Physicians and others desiring to become subscribers, will please forward their names; and those receiving the circular are respectfully requested to call the attention of their friends, and also of the County and State Medical Societies to the proposed work.

Address—

JOSEPH JONES, M.D.,
Glass Box 1542, New Orleans.

Obituary.

E. A. Clark, M.D.,

Professor Principles of Surgery and Surgical Anatomy in the Missouri Medical College, died suddenly at the residence of his parents, Paris, Ill., on the 16th ult. Dr. Clark graduated at Rush Medical College in 1861, served with distinction as Surgeon U. S. V. during the late war, and had achieved a position of eminence in the profession, although, we believe, not yet thirty-five years of age at the time of his decease. He was quite generally known by his contributions to the medical press, and the news of his untimely demise will be received by the general regret of the profession as well as by his more immediate friends and acquaintances whose affection and respect he had secured by his many excellent qualities both of heart and head.

Dr. Felix Von Niemeyer,

Director of the Medical Clinic of the University of Tübingen, died on the 14th of March. He was, perhaps, the most eminent of the present class of German pathologists, and had recently become familiar to the profession of this country by his excellent volumes on the Elements of Practical Medicine. His death is said to have been accelerated by the onerous character of his duties during the recent Franco-Prussian war.

J. E. Scanland, M.D.,

Of this city, was killed a few weeks since. Dr. S. graduated at Rush Medical College with distinction, February, 1868. Subsequently, having engaged in private practice he was occupied a portion of the time as one of the instructors in the spring session of the College, in which position he gave excellent satisfaction. During the present session he had not been connected with the institution.

At the time of his death, Dr. S. was about 29 years of age, of commanding physique, courtly manners, and the bearing of a polished gentleman. As such, he was a general favorite in the circle of his acquaintance. Indirectly, these qualities were the cause of his untimely death, which took place at the hands of the brother of Mrs. Scanland. Whilst the case is pending in the courts, it is of course improper for the press to utter any word which may prejudice the prisoner's case, or in anywise interfere with the impartial administration of justice. The facts, about which there seems no dispute, are, that some intermeddling villain had endeavored to poison the mind of Mrs. S. with jealousy of her husband. Whether rightfully or wrongfully, Dr. S. supposed this intermeddler his brother-in-law, and while remonstrating with him against his presumed assumption of the role of a detective, and possibly indulging in violent language, he was, although

wholly unarmed and defenceless, shot down (on the plea of self-defence) and instantly killed. The interview and the shooting took place in broad daylight, and upon an unobstructed sidewalk of one of our principal streets. So far as the immediate cause of the difficulty was concerned, there seems no reason to doubt that Dr. S. was wholly free from imputation, and the lady whose name was most outrageously dragged into the case was thereby most vilely wronged.

The recent conviction of Mrs. Fair, in San Francisco, lends strength to the hope that our courts are awaking to a realizing sense of the value of human life, and are disposed to throw some safeguards around it. There is a sentimental brutality abroad which satiates itself in sympathy with those who violently "put out the light" of life, but has no tears or even "regrets" for the victims of murder, "most foul and unnatural."

We trust that in the present case the homicide may be *fairly* investigated.

[Since the above was put in type, the Grand Jury have discharged the prisoner as acting in *self-defence*. The more probable reason is, that in Chicago it is considered no crime to shoot a doctor, or any other man, if there is a woman in the case.]

J. Wolcott Hooker,

Who for a few months attempted the publication of this JOURNAL in 1869, and, as many of our old subscribers know to their cost, failed to issue the same after a brief effort in that direction, and through whose instrumentality several thousands of dollars were lost to the present writer (to his continuously increasing disgust)—having disappeared from our knowledge and anxious view for the last eighteen or twenty months, has recently been heard from as the principal and, indeed, sole, actor in a somewhat startling tragedy. J. W. H. committed suicide at St. Louis, April 18th, by hanging himself with a trunk strap attached to a stout iron staple of the window casing of his room. It seems he made the preparations for his exit with remarkable care, and an evident eye to its tragic effect. We forgive him now, and say, Peace to his ashes.

Hon. Harrison Noble, M.D.

Died, at his residence near Heyworth, Illinois, on the 12th of August, 1870, Hon. HARRISON NOBLE, M.D., in the 59th year of his age.

Dr. Noble graduated at the Ohio College of Medicine in the spring of 1847. Previously to this time he had been engaged in agricultural pursuits, and early in the history of McLean county had been county surveyor. He was a man of great strength of mind and will—a close student—and immediately after his debut in medicine became prominent in the profession of the State; at one time being elected President of the Illinois State Medical Society, and was one of its most honored and efficient presiding

officers. He was regular in his attendance upon the meetings of the State Society, acting as chairman of the committee upon the practice of medicine, and other important committees At one time he made a special report upon the subject of typhoid fever, that was regarded as a very able effort. He was also a member of the American Medical Association, and frequently attended its sessions.

The doctor represented his district in the State legislature two consecutive terms, and was a prominent working member of that body. The then Governor of the State declared in a public speech that he owed more to him for valuable assistance than any other member of either house.

At the last gubernatorial canvass he was a prominent candidate for the nomination for Governor, by a number of the central counties of the State.

Personally, Dr. Noble was a man of splendid physique and commanding presence—a good adviser, and a true and faithful friend. By his death, a void has been created in the circle of society he ornamented, and in the profession that he elevated by his counsels; but,

> "He gave his honors to the world again,
> His blessed part to Heaven, and slept in peace."

COM.

At a called meeting of the McLean County Medical Society, held at the office of Drs. Bradley & Laughlin, in Bloomington, Ill., on the 15th day of March, 1871, to take action with regard to the death of Dr. S. W. NOBLE, the following preamble and resolutions were unanimously adopted.

R. D. BRADLEY, *Sec.*

WHEREAS, We learn with sadness that our much loved companion, Dr. S. W. NOBLE, after a protracted and painful illness—which he endured with great fortitude and patience—died on yesterday afternoon, at 7 o'clock:

Resolved, That in his untimely death, our Society has lost one of its most honored and useful members, the community a man of superior acter and influence, and his family a devoted husband and affecti father.

That we will ever cherish the memory of his ardent attachment to the interests of our Society, and his unremitting devotion to the cause of our noble profession, to whose dignity and practice he consecrated all his powers, and all his great talents—and in the service of which he spent his life.

That we commend Dr. Noble's example, in that his devotion to his beloved science prompted him to express his desire that a post mortem examination of his body be made, in order to confirm or correct the diagnosis of his case.

That we hereby tender to his stricken and bereaved family and friends, our sincere sympathy in this their sad and irreparable loss; and that a copy of these resolutions be published in the city papers, in the CHICAGO MEDICAL JOURNAL, and in the *Western Lancet and Observer*, and that a copy be handed to the afflicted wife of our deceased brother.

A. H. LUCE,
R. G. LAUGHLIN,
T. F. WORRELL,
Committee.

Illinois State Medical Society.

Office of the Permanent Secretary, 296 W. Monroe street, Chicago, Ill., April 19, 1871.

The twenty-first annual session of this Society will be held in the city of Peoria on the third Tuesday (16th) in May, 1871, at 10 A. M.

The following Committees are expected to report:

On Practical Medicine—Dr. H. A. Johnson, of Chicago, Chairman.
On Surgery—Dr. E. Andrews, Chicago, Chairman.
On Obstetrics—Dr. De Laskie Miller, Chicago, Chairman.
On Drugs and Medicines—Dr. E. Ingalls, Chicago, Chairman.
On Criminal Abortions—Dr. W. H. Byford, Chicago, Chairman.
On Ophthalmology—Dr. H. H. Roman, Springfield, Chairman.
On Phthisis Pulmonalis—Dr. S. W. Noble, Bloomington, Chairman.
On Otology—Dr. S. J. Jones, Chicago, Chairman.
On Criminal Insanity—Dr. A. McFarland, Jacksonville, Chairman.
On Idiocy—Dr. C. T. Wilbur, Jacksonville, Chairman.
On Medical Uses of Carbolic Acid—Dr. N S Davis, Chicago, Chairman.
On Cholera Infantum—Dr. D. W. Young, Aurora.
On Membranous Croup—Dr. D. Prince, Jacksonville.
On Gleet—Dr. R L. Higgins, Vandalia.
On Results in Fractures—Dr. G. W Phillips, Dixon.
On Intestinal Affections of Infants—Dr. T. D. Fitch, Chicago.
On Diabetes—Dr. W. D. Sterling, Ionia.
On Perineal Section—Dr. E. Powell, Chicago.
On Duties of the Profession to State Med. Soc.—Dr J. S.Whitmire, Matamora.
On Causes of Mortality after Amputation—Dr. R. N. Isham, Chicago.

Medical Societies are entitled to one delegate for every five of its regular resident members, and one for every additional fraction of more than half this number.

The Faculty of every regular Medical College is entitled to two delegates. Every chartered or municipal hospital is entitled to one delegate.

Any respectable physician, unable to attend as a delegate or permanent member, may attend as a *member by invitation*, on the recommendation of the Committee of Arrangements.

Railroad Arrangements.—Arrangements have been made with all the railroads leading to Peoria—to return delegates and permanent members for one-fifth fare on presentation at the ticket office of a certificate signed by the Secretary of the Society, except the Chicago, Rock Island and Pacific, with which company we have the following arrangements: Any delegate or member expecting to travel over this road to and from the Society, must have an order, which he can obtain from me, before leaving home, which on being presented to the ticket agent at any station on the road, will entitle the holder to an excursion or round trip ticket, at sixty per cent. of the regular fare.

I shall send to every member of the Society, that will probably go over this road, an order, which if they do not wish to use, they may hand to any delegate or member that desires to go—or return to me.

T. D. Fitch, M.D.,
Permanent Sec'y Ill. State Med. Soc.

Loot.

The Treatment of Internal Strangulation of the Bowel (Ileus Volvulus).

M. Tillaux, of the Hôpital St. Antoine, Paris, recognizes two forms of internal strangulation, the true and the false: the former arising from a physical cause, the latter from a dynamic cause; or, in other words, the former being produced by a mechanical obstacle to the passage of the contents of the intestine, the latter by a contraction or a paralysis of the coats of the intestine themselves. In the present essay he speaks only of the false variety, and shows that one of the most frequent causes of this state is acute peritonitis, either of a primary nature or consecutive upon a perforation of the intestine. Is it possible, he asks, to distinguish between these last two? He gives a series of cases where operations have been undertaken by distinguished surgeons, in which the peritoneal cavity was opened and yet no strangulation discovered, peritonitis alone being present; whilst in other cases internal strangulation has been judged to be present when the real disease was a calculus impacted in the biliary duct. Both in primary peritonitis and in that resulting from perforation the pain occurs suddenly, but its characters are not identical in the two cases. In strangulation the pain is spontaneous and but little increased by palpation or pressure of the abdomen, whilst in peritonitis it is excessive. Vomiting occurs at the outset in both cases; but in peritonitis it rarely becomes fæcal; in strangulation it may be bilious at first, but rapidly becomes fæcal. Constipation is obstinate and complete in internal strangulation, but in acute peritonitis some evacuations usually occur in response to the purgatives that are often given originally. The pulse is frequent and very small in peritonitis, even from the beginning; but these characters are prominent only in the latter stages of strangulation. The expression of the face is anxious and materially altered at an early stage of peritonitis; but in strangulation the expression of the face, though altered, yet presents a character that is difficult to express in words and is best caught at the bedside of the patient. The belly is tympanitic in both cases, but chiefly in peritonitis. When a true and complete internal strangulation occurs, the surgeon has two indications to fulfill: to remove the constriction and to give a new point of discharge for the fæces. The first is accomplished by the operation of gastrotomy, the arguments for the performance of which are materially supported by the modern practice of ovariotomy, and M. Besnier, who has paid much attention to the operation, is strongly in favor of it. M. Tillaux, however, objects to it, on the grounds, first, of the extreme difficulty of discovering the seat of constriction, and,

secondly, of the inflamed condition of the intestines. The second indication is fulfilled by the operation of enterotomy, as suggested by Nelaton, who, resting on the fact that it is the small intestine that usually undergoes strangulation, makes a small opening in the right iliac region, seizes, draws forth, and opens the first loop of intestines that presents itself, and thus gives issue to the fæcal matter. M. Tillaux maintains the superiority either of this plan or that of M. Lavgier, which consists in stabbing the intestine with a trochar, as the best and most appropriate treatment. (*Bulletin général de Therapeutique*, liv. vii. 1870.)—*Practitioner.*

Large Doses of Chloral.

Dr. James Rodman states (*The American Practitioner*, Oct. 1870) that a nurse gave one of his patients, who was under treatment for insanity, in order to induce sleep, 270 grains of hydrate of chloral, which produced sleep for eighteen hours, without any alarming attendant symptoms.

A case is reported (*Medical Times*, Oct. 15, 1870) of a female nurse in the Philadelphia Hospital, who took 460 grains of chloral. It produced deep sleep, her respirations were 35—heavy and stertorous; pulse 140: face flushed; extremities cold and livid. The symptoms resembling those produced by an overdose of opium, she was supposed to have taken that drug, and was treated in accordance with that supposition. She entirely recovered, when she stated she had taken some medicine from a vial for the relief of headache, and it was ascertained that the medicine was a solution of chloral.

It is stated in the *Lancet* (Nov. 26, 1870), that as much as 160 grains of the hydrate of chloral were lately given by mistake in one dose to a middle-aged man in one of the London hospitals. Some alarm was felt, but no disagreeable symptoms occurred; the man slept well, and no unpleasant effects resulted.—*Medical News.*

Oil of Peppermint as a Local Anæsthetic.

Dr. A. Wright writes to the editor of the *Lancet* (Nov. 19, 1870), that "a few years ago I became acquainted with the fact of the natives [Chinese], when suffering with a facial neuralgia, using oil of peppermint, which they lightly apply to the seat of pain with a camel-hair pencil. Since then, in my own practice, I frequently employ oil of peppermint, in the same way, as a local anæsthetic, not only in neuralgia, but also in gout, with remarkably good results; indeed, the relief from pain I have found to be almost instantaneous."

It is worthy of note that some Chinese pharmaceutists in San Francisco and New York have been selling a remedy for neuralgia, which has gained some repute. It is a liquid put up

in very small vials, holding about half a drachm each, which are sold at an exorbitant price. The liquid has a strong smell of peppermint, and is in all probability the oil of that plant.—*Medical News.*

Twenty-five years ago, at least, the oil of peppermint was a common application in neuralgia. We recollect being informed by Dr. Stewart, one of the oldest practitioners of Michigan, now living, that he learned its use from the noted Dr. White, of Cherry Valley, N. Y., many of whose students, now venerable with years, have always been in the habit of using it for this purpose. The pity is that it is not more successful, yet we scarcely take up a secular paper but has this item as something new from the "heathen Chinee." As a new thing it will do to put alongside of the St. Louis "substitute for the stomach pump," which our contemporaries are still publishing as a novelty, though we last year published its origin dating nearly fifty years ago. How long will it take, at this rate, to get back to the medical philosophy and appliances of five hundred years ago, which are now the prevailing Celestial style?

Enlargement of the Uterus.

Dr. Atthill read a paper on this disease, at a late meeting of the Dublin Obstetrical Society:

After passing an encomium on the uterine sound, which he considers to be not only one of the most useful, but also the safest instrument we possess, if carefully and skillfully used, he proceeded to say that enlargement of the uterus was met with in a very large percentage of those cases in which the symptoms are referable to the organs of generation in the female, a condition easily explicable when the great change which takes place in the uterus under the influence of pregnancy, and even, in a degree, at each menstrual period, is borne in mind. The following, apart from the actual existence of pregnancy, are the causes to which most frequently enlargement of the uterus is due, namely:

1. Sub-involution of the uterus after pregnancy or abortion.
2. Congestion of the uterus from sudden suppression or retardation of menstruation.
3. Acute inflammation of the uterus, or its peritoneal covering.
4. Chronic inflammation of the uterus.
5. Hypertrophy of the uterus.
6. The stimulus given to the uterus by the presence in its walls of fibrous tumors.
7. The existence of any form of intra-uterine tumors.

With respect to sub-involution, it was very frequently met with, being a condition specially likely to occur in cases in which any form of pelvic inflammation follows delivery. It may occur also after abortion. The earliest symptom of sub-involution, and the most common is, undoubtedly, menorrhagia, a symptom nearly invariably present. Dr. Atthill, however, narrated a case of sub-involution of the uterus, in which amenorrhœa existed. The uterus in this case was very large, the sound penetrating to the depth of five inches. This patient was perfectly cured, the treatment adopted being the introduction up to the fundus of the uterus of eight grains of the solid nitrate of silver, which, dissolving, stimulated the whole of the inner surface of the uterus, and caused healthy interstitial absorption to be set up. Dr. Atthill advocated this plan of treatment in cases of enlargement of the uterus depending on sub-involution. The occurrence of enlargement of the uterus from sudden suppression of menstruation was next dwelt on; the occurrence of this form of enlargement is difficult to verify. Dr. Atthill, however, stated that he believed it to take place not unfrequently, and gave the particulars of a case in which the measurement of the uterus, by means of the sound, proved this to be so. All writers mention the liability of the uterus to enlarge during an attack of acute inflammation of that organ. The correctness of this was confirmed by the details of cases in which, by the introduction of the sound, the increase in size and subsequent diminution was proved, in instances both of metritis and peritonitis. Chronic inflammation of the uterus appears to be a very common cause of enlargement of the uterus, and gives rise to much distress. It is often associated with retroflexion, not unfrequently being the cause of that displacement. Menstruation was stated to be, in the writer's opinion, generally much diminished by the occurrence of chronic inflammation. Of all the cases of enlargement of the uterus, simple hypertrophy of the muscular tissues of the uterus is that giving rise to the greatest amount of distress, and the form least capable of being benefited by treatment; in it menstruation occasionally becomes painful, sometimes scanty, but seldom, if ever, increased in quantity. Cases illustrating this and each of the other forms of enlargement of the uterus, were detailed and commented on, and the paper concluded with some general observations on treatment. The consideration of the other forms of enlargement of the uterus were deferred to some future occasion.—*Med. and Surg. Reporter.*

A New Iodine Paint.

I have been requested by some professional *confréres* to bring under the notice of the profession, a new *iodine paint*, which I have had prepared and used with satisfaction and success, in the cases of glandular enlargements and scrofulous diseases, wherein

iodine is called into requisition. In the hands of esteemed and eminent practical surgeons, it has proved equally beneficial as in my own practice, and they speak or write in flattering terms of it to me.

I rub down half an ounce of iodine and a like quantity of iodide of ammonium in a Wedgwood mortar, and gradually dissolve it in twenty ounces of rectified spirit; to this I add four ounces of glycerine, shaking the solution well together. A very nice paint is thus obtained, which has the following advantages:

1. The iodine is prevented escaping, owing to the combination which, in the form of ordinary tincture, in warm weather it is very apt to do.

2. It preserves the iodide of ammonium instead of iodide of potassium; the former being a more powerful absorbent than the latter, which recent investigation has verified.

3. The action of the glycerine is soothing to the skin, keeping it soft and pliable—a contrast to the shriveling of cuticle produced by the ordinary tincture in common use, which frequently acts as a vesicant. But where absorption is desired, the part affected and its neighborhood influenced, as well as the system generally by iodine, and no local irritation required, this combination in form of paint will be found superior to the old tincture.

I have not confined the use of the preparation alone to glandular swellings or scrofulous gatherings. I have employed it in chronic cutaneous diseases, to nodes, over enlarged livers, diseased joints, to hypertrophied parts or morbid growths, and in cases wherein it was necessary to alter an abnormal action or promote absorption, and the result was uniformly satisfactory, and I think I may safely say the effect of the iodine was more really appreciable, and more quickly demonstrated in its action on the system generally, as well as by its absorbent properties locally, than the old tincture of the British Pharmacopœia, *minus* its disadvantages—J. Waring-Curran.—*Canada Medical Journal.*

On Subnitrate of Bismuth in Cholera Infantum.

Having noticed in the November No. of the *American Practitioner* an article by Dr. Walling on the use of subnitrate of bismuth in the treatment of cholera infantum, I take pleasure in adding my testimony to the powers of this remedy in the bowel affections of children. I have not used the remedy in that stage of the disease in which Dr. Walling found it so beneficial. In the acute form of this affection, characterized by frequent vomiting and purging, I usually had but little trouble in controlling it in from six to twenty-four hours with this:

℞. Plumbi. Acet., - - - - - - gr. x.
Morph. Acet., - - - - - - - gr. ss.
Aquæ Destil., - - - - - - ℥ j.
Syrup. Simpl., - - - - - - - ℥ ss. M.

Of this, I gave to children from one to two years old, a teaspoonful after each act of vomiting; or the following, which, though less generally efficient than the foregoing, I found to act promptly in some cases:

R.	Tr. Opii, - - - - - - - -	gtt. xv.
	Potass. Bicarb, - - - - - - -	gr. xxiv.
	Syr. Simpl, - - - - - - - -	℥ ss.
	Aquæ Menth. Pip., - - - - - -	℥ j. M.

Dose as the other. I sometimes gave at intervals of four hours, and repeated it a few times, half a grain of calomel, a grain of aromatic powder, and two grains of bicarbonate of soda; but I am not sure that I saw any good from it.

In cases tending to collapse, I used brandy, chloroform, quinine, coffee, and milk, with external warmth, sinapisms, etc. Where there was no disposition to collapse, the mother's milk was the only food allowed. Where the child was weaned, milk, to which lime-water was added, was given.

A certain proportion of these patients convalesced at once, after the violence of the attack was subdued, and recovery was complete in a few days; while in a large number the disease showed a marked tendency to become chronic. Add to these cases those that were not seen until after they became chronic, constituting more than half of all that I saw, and we have the class in which the subnitrate of bismuth seemed to possess such decided efficiency. In my hands it has contributed more in such cases to restore the normal condition of the mucous membrane of the alimentary tract than any other medicine that I have employed. Since I commenced its use I have relied on it mainly. In private practice and in the Western Dispensary I have seen and treated during the past season, between thirty-five and forty cases, a majority of which, as before stated, were not seen until they had become chronic. In some, the accession of the disease had been marked by acute vomiting and purging, while in others the condition had been developed gradually. Several had marked degree of emaciation and debility that seemed to render them hopeless.

Exclusive of the cases in which complete recovery followed the acute stage in from three to six days, I used the bismuth in every instance. It seemed to act beneficially alike in those that had been marked at the outset by severe vomiting and purging, in those that had been developed more gradually, in those in which the trouble seemed to be kept up by indigestion alone, and in those where inflammation of the mucous membrane existed. I gave the medicine usually as follows:

℞. Bismuth Subnit., - - - - - - - ʒ j.
Syr. Zinzib., - - - - - - - - ʒ iij.
Tr. Cinnam., - - - - - - - - ʒ j.
Tr. Opii, - - - - - - - - gtt. xviij.
Syr. Acaciæ, - - - - - - - ʒ j. M.

Of this mixture I ordered a teaspoonful four times daily to children from one to two years old. This was continued until all disposition to vomiting had disappeared, and the fecal dejections had diminished in frequency and become more consistent, which very generally obtained in from three days to a week, sometimes sooner. After this, the medicine was given at longer intervals for a few days, and then discontinued. In some cases I added pepsin to the prescription with apparent benefit. Quinine was exhibited in those cases where a malarial element seemed to be present.

Alimentation entered as an important element into the treatment of the chronic cases, especially where emaciation and debility were marked. I did not confine these little sufferers to a milk diet; on the contrary, they were encouraged to take animal essences and soups, soft-boiled eggs, egg-nog, and even solid meats; ripe fruits and vegetables were not inhibited when the patient showed a desire for them. Alcoholic stimulants were employed in proportion to the tendency to exhaustion.

The length of time that any of these patients were under treatment was not noted. With several of them the symptoms returned, and more than once I had to resume the use of the bismuth after it had been suspended. All recovered; some in ten days to two weeks, others requiring a longer time; and with a few, owing to frequent relapses consequent on the want of proper care, complete restoration to health was delayed for two or three months.—C. K. Alexander, M.D.—*American Practitioner.*

Cinchona in Java.

According to Professor Hasskarl, the cultivation of cinchona in Java continues to be a success, the weather having been favorable and the growth of the plant perfectly satisfactory. The number of plants obtained from seeds and layers was about one and a half million, principally of the species *C. calisaya;* eight hundred and seventy thousand were transplanted in addition, and over one thousand pounds of the dry bark were sent to Holland in 1869, bringing from thirty-six to fifty-four cents per pound. The total product of 1870, is estimated at eight thousand eight hundred pounds for exportation, besides some hundreds for home use in the island.—*Agricultural Report.*

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—JUNE, 1871.—No. 6.

Original Communications.

ARTICLE I.—*Some Remarks upon Cases of Obstruction of the Bowels in which Surgical Means were used.* By A. REEVES JACKSON, M.D., Chicago, Ill.

(Continued from page 135.)

CASE III.—*Intussusception of the ileum—Peritonitis—Puncture of Bowel—Death.*

James W., aged 17 years, a house painter's apprentice, was awakened about midnight with violent spasmodic pains, a little below and to the right of the umbilicus. He arose and passed a natural stool, with temporary relief. The pain returned in a few minutes, and was accompanied with cramps in the thighs. He took two tablespoonsful of sulphate of magnesia, and had hot applications to the abdomen. The pain, which was described as being of a sharp, tearing character, and occasionally as though the bowel was constricted by a cord, continued, and a glass of hot, spiced whisky was taken two hours after the salts. This was almost immediately ejected by vomiting. During the next day the abdomen became somewhat distended, and nausea and vomiting were quite frequent, the ejected matter consisting of a yellowish fluid, having an unpleasant but not feculent odor.

He came under the care of the writer September 17th, 1868, two days after the commencement of the attack. At this time he was pale, and his expression somewhat contracted; pulse 120, small, quick and wiry; tongue dry, and covered with a yellowish-brown fur. His gums presented a bluish margin. The abdominal walls were moderately distended and resonant, except in the right iliac fossa, where a hard, somewhat cylindrical tumor was distinctly felt, its axis lying across the abdomen, and extending beyond the median line. The urine had been passed in normal quantity throughout the attack. The rectum was empty.

Here were spasm, constipation, abdominal pain, blueness of gums, and the fact that the patient had been engaged in an occupation that exposed him to the influence of lead poison. On the other hand, there was the existence of a suddenly formed tumor, which, when taken in connection with localized pain, obstinate constipation, vomiting, and the passage of blood, constitutes the most distinctive and reliable sign of intussusception. Although in this case there had been no appearance of blood, I regarded the symptoms sufficiently well marked to warrant a diagnosis of the last-named condition.

Hot fomentations and poultices were applied to the abdomen, and a large enema of thin gruel, administered through a long, flexible tube, passed carefully into the colon. This was returned, in about half an hour, unchanged. A full dose of sulphate of morphia, in combination with two grains of calomel, was given, with orders for its repetition every four hours.

18th. All the symptoms were worse. The abdominal pain was intense and constant; the stomach rejected everything; substances vomited were now plainly stercoraceous, and contained blood. The patient's countenance was pale, haggard, and anxious; skin cool and dry; pulse 130, small, thready and weak; respirations 30, but much quickened with slight exertion; tongue dry and cracked. He was lying on his back, with the legs drawn up. The abdomen was enormously distended, and resonant in every part except the most dependent, while the integument covering it was tense and shining. Urine was passed in full quantity, without the patient rising. Several enemata of warm water, thin broths, etc., each containing laudanum, had been given, but all were quickly returned, some tinged with blood, while others were unchanged.

Believing that the greater part of the patient's sufferings arose from the excessive tympanites, I punctured the abdomen at a prominent point just below the umbilicus, by means of a small exploring trocar. This was followed by the escape, through the tube, of a large quantity of slightly fetid gas, with subsidence of the abdominal fulness, and great and immediate relief to the symptoms. The patient could now bear sufficient pressure upon the abdomen to enable me to feel the sausage-like tumor of the right side again, and I also discovered the presence of a considerable amount of effusion.

Hot fomentations, containing turpentine and opium, were now assiduously applied; mercurial ointment was rubbed into the skin, inside of the thighs; and suppositories, containing two grains of opium, were placed in the rectum every four hours.

After a time the patient fell into a disturbed sleep, which lasted two hours. On awaking he was exceedingly thirsty, and took a large draught of water. This produced vomiting, and a return of the pain. The abdominal distension also rapidly returned, and at ten o'clock in the evening—thirteen hours after the tapping—it was as great as before.

19th. This morning found the patient still worse. The abdomen was stretched to its utmost capacity. The superficial veins were turgid and prominent, and the skin glistening. The knees were drawn closely up to the chest. The surface was cool and moist; pulse 120, small and tense; respirations 30; urine somewhat scanty and highly colored. He is tormented with insatiable thirst, and drinks plentifully, everything being instantly rejected. The vomited matters are mostly clear, consisting of the water swallowed, together with a yellowish-brown substance, having a sour, unpleasant, feculent odor, and sometimes turbid.

The gas was again drawn off by means of the trocar, but the relief afforded was not nearly so great as before. During the day he steadily grew worse. The feculent vomiting became almost constant; delirium set in during the following night; he then became comatose, and died at 8 A. M., on the fifth day of the sickness.

The inspection was made eight hours after death. The abdomen was much enlarged from flatulent distension of the small intestine. The peritoneum was greatly injected, and its cavity contained

nearly two pints of serum, and also collections of thin pus. Feeble adhesions, by means of recently-effused lymph, were observed between contiguous surfaces of the intestinal coils. On laying open the large intestine, a portion of the ileum, about six inches in length, was found invaginated in the cœcum and colon, and tightly constricted by the ileo-cœcal valve. Above the point of obstruction, the intestines were deeply congested, distended with gas, and contained also a large quantity of a yellow, pultaceous fœcal matter. Below it, the transverse colon was filled with gas, but the remainder of the bowel was empty and healthy.

Remarks.—No one whose attention has been directed to the literature of obstruction of the bowel, can fail to be struck with the fact that very many of the cases which have resulted fatally might, in all probability, have been saved by a timely surgical operation. In reading the accounts of the autopsies of such cases, how frequently do we find that the cause leading to the fatal result is stated to be a band of adhesion—a twisting of the bowel—slight intussusception—and other mechanical derangements, quite easily relieved by surgical interference, and yet almost certain to end in death without such interference. I am well aware of the fatality that has attended operations for the relief of internal strangulation, but cannot resist the conviction that in many of them the untoward result has been due, not to the operation itself, but to the delay in resorting to it. Perhaps there is more force in some other objections that have been urged against the use of surgical means in these cases. For example, the peritoneum is either already inflamed or in a state of intense congestion, and both conditions are likely to be aggravated by gastrotomy. But is the operation more certain to produce this result than a continuance of the strangulation? I think not; and if the obstruction is of such character as to be susceptible of relief by operation, surely the patient's chances for recovery are very much increased.

It has been urged, too, that the difficulties in the way of accurate diagnosis constitute an objection to gastrotomy. This objection had more weight a quarter of a century ago than at the present time; for, thanks to the labors of such men as Hilton, Brinton, Habershon and others, many cases, that in their diagnostic aspect were obscure at that time, are now comparatively clear. Never-

theless, it must be admitted that there are even yet few conditions that present more puzzling features than some of these cases of obstructed bowel. Still, even here, when the symptoms have been sudden in their onset, the pain acute, paroxysmal and limited to one spot, the constipation unyielding to laxatives, opium, the warm-bath, etc., and although we may be in doubt as to the exact nature of the obstruction, I would regard it as entirely proper to make an exploratory operation, guided by the site of pain. Operations of this kind, now so common in cases of obscure abdominal tumors, are attended with comparatively little danger, and are sufficient to decide the diagnosis, and determine the treatment. Indeed, if this whole question of surgical treatment were entertained at a much earlier period than it usually is, I do not doubt that the death-rate would be materially changed; for operative measures promise success in proportion to the promptness with which they are instituted. If delayed until peritonitis has taken place, and the involved structures are disorganized, we cannot, of course, reasonably expect success, and obloquy is attached to an operation which, if performed more timely, would be frequently useful.

We are told likewise that some of these cases, apparently of the most desperate character, recover. This is unquestionably true, and it is well known that an invaginated portion of intestine may become sphacelated at its extremities, detached from its place, and discharged from the body without necessarily destroying life. But while a knowledge of these facts may be sufficient to prevent us from regarding such cases as utterly hopeless, they are yet so rare and attended by so many risks of failure, that they do not encourage us to rely upon such unusual efforts of the *vis medicatrix* in the hour of need.

In many cases of obstruction, the excessive distension of the intestine appears to be not only the chief cause of distress, but likewise of inflammation, extravasation and paralysis of the organ. Here there should be no hesitation or delay in puncturing the bowel at a prominent point, and thus removing this source of pain and danger. Under such circumstances, I believe the operation to be almost harmless and unquestionably proper.

When insuperable obstruction arises from stricture of the rectum, whether high or low, colotomy should be performed. The colon

may be opened in the loin, without injury to the peritoneum, thus relieving this proceeding from the objections that attach to those involving the integrity of that part. This operation is likewise demanded for irremovable tumors and cancer of the rectum. Although in these cases the operation has no power to cure the disease, it will, especially in the case of cancer, relieve the excruciating pain caused by the passage of fæces over the exquisitely sensitive bowel preventing sleep and destroying appetite, lessen greatly the amount of purulent and bloody discharge, and thus prolong life.

785 Michigan avenue.

ARTICLE II.—*Excisions of Head of Humerus for Gun Shot Wounds.* By CHARLES M. CLARK, M.D., late Surgeon 39th Ill. Vol. Infantry, and Chief Operating Surgeon 24th Army Corps.

CASE I.

George Parce, private, company B, 44th Regiment Ill. Vols., wounded at the battle of Chicamauga, September 20th, 1863, by conoidal bullet, which entered anterior surface of arm, four inches below the head of bone, passing almost transversely through the soft tissues, impinging slightly on the shaft of humerus during its passage.

No treatment, save simple cold water dressing, was applied or considered necessary at the time.

He entered the "Chicago Soldiers' Home" in the month of January, 1865, with caries and necrosis of the upper third of the humerus, involving the head of the bone. There was free discharge of pus from four distinct sinuses on the dorsal surface of the arm, and he complained of constant pain.

An operation for excision of the head of bone was performed April 7th, 1865, by Dr. E. Andrews of this city, when the head of the humerus and a portion of its shaft was removed, the whole measuring five and one-fourth inches in extent.

The wound of the operation did not heal readily, chiefly on

account of the great impoverishment of the general system; erysipelas occurring, which run its course, and was attended with considerable sloughing.

The case came under my notice June 16th, 1865, at which time I took surgical charge of the Home. The arm was then swollen and painful, with discharge of a sanious pus, and a large extent of denuded bone was detected with the probe. The patient was anxious for another operation, saying that he could not survive such torture as the member constantly gave him.

He was placed on full and nutritious diet, together with malt drinks and other stimulants, receiving thereby great benefit—gaining largely in flesh, strength and spirits.

August 2nd, 1867, he was placed under the influence of equal parts of chloroform and sulph. ether, and two and one-half inches of the remaining shaft of the bone removed by longitudinal incision on outer surface of the arm. The bone removed was extensively diseased, being denuded of periosteum, and shell-like in its structure and calibre, the medullary canal being greatly increased in diameter, and its contents bleeding very freely when section was made.

The space occupied by bone prior to the previous operation was filled with cartilaginous material, with some points of ossific deposit.

The wound was brought together with interrupted silk sutures, after a thorough cleansing with a solution of chloride of zinc; adhesive straps, bandage and splints were applied, and the man sent to his bed. August 4th, the sutures were removed, and found that the wound had healed nearly, by first intention.

September 1st, the wound was firmly cicatrized, and the man was able to use the arm to considerable advantage without pain, and without any considerable soreness, and there was no discharge whatever from it.

September 15th—He suffered chill with fever following, and from this date the wound commenced to inflame, and soon discharged large quantities of pus from two different sinuses. The probe detected a large surface of dead bone, and, with his consent, another operation was decided upon, and which was performed October 3d, 1867, when three and one-half inches more of the bone were removed, making eleven and one-fourth inches in all.

The portion removed presented, almost entirely, the same characteristics as the portion of bone previously removed.

During the operation, whatever portion of the periosteum was in contact with the bone was dissected off, for the purpose of testing its capacity for reproduction.

The wound healed rapidly, and ceased discharging, with no other dressing than a solution of chloride of zinc, frequently applied to the parts with a sponge.

Fig. 1. Fig. 2. Fig. 3. Fig. 4.

Fig. 1 represents the portion of bone removed by Dr. E. Andrews.

Fig 2, the portion removed at my first operation.

Fig. 3, another portion, and last operation from increased bone.

Fig. 4, the portions of callous or ossific deposits that had formed in the course of repair, after the second operation, and which were distributed very unequally, and gave rise to a great degree of irritation.

In March, 1868, he could use the arm to great advantage—feed himself with it, and carry it up sufficiently high to take off his hat.

He left the "Home" in the latter part of March, 1868, feeling well, and had gained some twenty pounds in flesh.

I have seen this man twice within the past two years (1869–70), and he is vigorous and healthy. The arm has not troubled him since the last operation, and is filling up with a cartilaginous substance that grows firmer every day.

The last time I saw him he was complaining of some trouble connected with his heart, and was confident of some lesion there from the repeated shocks to his nervous system, occasioned by the frequent use of chloroform and the knife.

The depression under the acromion was disappearing, and he could use the arm to a considerable extent without aid from the other arm. There was a condition of anchylosis at the shoulder, and when the arm was raised, a false-joint was manifest at the middle third.

This case presents several features that are full of interest and instruction to the surgeon.

1st. The amount of bone removed (eleven and one-fourth inches), and the subsequent usefulness of the arm.

2d. The condition of the medullary canal and its contents (as noticed at the second and third operations), with the degree of bone absorption that had taken place, leaving the remaining shaft of the bone a mere shell.

3d. The disposition of bone tissue to reproduce itself, as witnessed in the portions removed, showing a tendency to heal and cover in the medullary. In each section of bone removed, after the first operation, there is noticeable a growth in the shaft, from the point of section to the extent of from a quarter to half an inch in extent, and, aside from this, there was a disposition in some portions of the shaft to throw out callus to heal the parts that had been encroached upon by disease.

If it is the function of the periosteum to nourish and reproduce bone, why is there not some uniformity in the process?—not one deposit here and another there, which instead of helping along repair, only creates more trouble from the irritation produced.

In all amputations there is noticed a new development of bone, extending, in some cases that I have seen, to the extent of three-quarters of an inch, and then terminating in a bulbous expansion, only limited by the length of the stump.

CASE II.

Joseph La Rock, private, company C, 9th Vermont Vol., aged 40 years.

This man received an accidental gunshot wound May 12th, 1865, at Richmond, Va., the ball (conoidal) entering right pectoral muscle at its outer third, passing through the capsular ligament of the shoulder joint, and extensively fracturing the head of the bone, the ball making its exit at middle of upper third of arm (the arm being at right angle with body).

May 13th—He was placed under the influence of chloroform at the 24th Army Corps hospital, and the following operation performed. An incision was commenced at the acromion process, and carried down on the dorsum of arm to the extent of five inches, through to the bone. An assistant then kept the edges of wound separated, while I removed the fragments and spicula of bone, being careful to denude them of periosteum.

The next step in the operation was to remove the head of the bone, which was easily accomplished with a few clips of the knife; then, after cutting away the ragged portions of the capsule, I paid attention to the lower portion of the humerus, and section made at a point where the shaft was complete—some two and one-half inches from the head of the bone.

The wound was brought together with sutures and adhesive straps, and compress and cold water dressing applied.

The man was put to bed, and remained under my care until perfectly recovered—some six weeks time—and then was mustered out of service by reason of disability.

The wound in this case healed rapidly and by the first intention in two thirds of its extent; the lower third was more slow in healing, and discharged continually a laudable pus in moderate degree, and healed by granulation.

At the time of his discharge he could raise the arm to a right-angle with his body, and the forearm could be used in lifting the cap from his head, and in feeding himself.

There was no atrophy or wasting away of the tissues of the arm; the member, after his discharge, being as plump and well developed as before the operation, for the reason, perhaps, that he had been growing more stout while an inmate of the hospital.

At the time I last examined the arm I found it to be firm, with a cartilaginous deposit, which was undergoing a change, as bony deposits could be distinctly felt; and if the man has taken sufficient care of himself since his discharge, he has a useful arm.

(To be continued.)

ARTICLE III.—*Reply to the "Criticism" of Dr. H. W. Boyce in Relation to an Article by the Writer upon "Cases in Practice, with Remarks on the Use of Veratrum Viride."* By B. O. REYNOLDS, M.D., Geneva, Wis.

The doctor opens by saying: "The report of cases, to be worth anything to the profession, should set forth all the facts truthfully."

In this statement the writer heartily concurs, as an earnest of which, I introduce the following:

GENEVA, WIS., April 13, 1871.

We certify that the account of Ida's illness and treatment, as published in the February number of *Chicago Medical Journal*, 1871, is strictly accurate and true, to the best of our knowledge and belief; and that the "Criticism" in the April number contains many errors and misrepresentations.

E. L. GILBERT, }
MRS. B. C. GILBERT, } Parents.
MISS A. CURTIS, Nurse.

This effectually disposes of this case in all its details, while it was under my observation, so far as these very intelligent parties were capable of understanding the facts and circumstances detailed in our respective reports. Apply to this the old maxim: "Falsus in uno, falsus in omnibus," and litttle more need be said in relation to the subject; yet I may be pardoned for commenting briefly on some few of the more prominent "errors" contained in the "Criticism," and the first we will notice is this:

"On the second consultation with Dr. R——, it was concluded to try the effects of veratrum viride, if an opportunity should occur," and "it was left with him to carry out the programme." Suppose for a moment this statement to be correct, when would it be expected "an opportunity would occur"? Does he inform us how much veratrum was put down on "the programme"?

The patient had swallowed nothing for many hours, and it was believed by all that she was unable to do so; indeed, she was thought to be dying most of the afternoon and evening, and the doctor expressed himself to all, the writer included, that there "was no hope," and for me "to do anything that I saw fit, or thought advisable"; no medicine was proposed, discussed, or suggested by either of us at that time; the doctor left immediately on my arrival.

No medicine was given her for nearly an hour after my arrival, except the inhalation, which they had found necessary to partially moderate her convulsions. I confess I looked upon the case as almost hopeless, and the only "programme" in our minds, at that time, was the death of our patient within a few hours at most.

The next point that I notice is the doctor's account of her condition next morning. He says: "I examined the patient next morning, but failed to see any marked improvement. Pulse and respirations remained extremely rapid, and there was great restlessness." He does not state how rapid; if he had, we might form some conjecture of what he considers an "extremely rapid pulse and respiration." This visit must have been about six, or half-past six o'clock, and about two, or two and a half hours after I had left, at which time the pulse was precisely 132, respirations 44; resting quietly; had had no convulsion during the night; extremities warm; gently perspiring; no nausea or vomiting; could swallow readily; had taken veratrum regularly every three hours, without much trouble; had drank water freely, and yet he "could see no marked improvement" from her perilous condition the evening before, with pulse far too frequent to be counted, respirations 95, extreme restlessness and frequent convulsions, and requiring the almost constant use of ether and several attendants to keep her in bed. It is extremely gratifying to know that the half dozen faithful friends that remained with us that night, and all that saw her on these two occasions, (Dr. B. excepted,) could *not* "fail to see" a wonderful improvement. It will be remembered that I visited Ida again at ten o'clock, and found her symptoms all improved, "Dr. Boyce in attendance"—with "pulse 102, respirations 40—sweating freely," etc. Yet no improvement?

Again, he says: "As the day advanced, the patient became

more quiet; the urine increased in quantity, with *frequent alvine evacuations.*"

It was stated in the report of this case, that a "small discharge" from the bowels had taken place in the after part of this day, and I will only refer to the certificate for additional reflections.

Query: if *one* insignificant evacuation could be thus construed "frequent alvine evacuations," would it not be at least methodical to rate a child's pulse beating steadily at 110 or less, as "extremely rapid"?

Again: "To these changes in the secretions I attribute the favorable change in *my* patient." Very likely; but, of course, veratrum, the only medicine she had taken for more that 24 hours, had no agency in bringing about this "favorable change." We take no exception to his personal pronoun "*my*" patient, although I visited the patient with him in the morning and evening of this day.

But, again, he says: "If the patient took the veratrum under his directions, as stated in the *Journal*, then she got rather more than a double dose, and I cannot help but be thankful that *we* did not kill her outright."

Not to speak of the implication, (*vide* certificate), I concede that ten drops of veratrum, under ordinary circumstances, is a large dose for a patient of this age, but I think it a sound maxim that "desperate cases" sometimes "require desperate means," and the sequel proved that the dose was not too large; for all experience and all authorities agree that the remedy is entirely safe and harmless, when given to any extent, if below the nauseating point, and this was not reached in her case, and had it been, I presume the improvement would have been more marked, if possible. It has been my practice for several years to administer this remedy in emetic doses in membranous croup, and always with the happiest result, and I have never witnessed any dangerous effects resulting from its use.

For the benefit of the incredulous, let us briefly direct our attention to a few authorities that may not require a certificate to establish the veracity of their statements in regard to their experience with this drug; these are purposely taken from the records of several years' standing, and so far as I have been able to learn, the article has not only lost nothing of the reputation here referred

too, by its recent and greatly extended use, but there is scarcely a well-informed physician at the present day who will not admit its great utility in the treatment of many of our worst forms of disease.

"It is reliable. As an arterial sedative, the Society has found it more certain than any other medicine of the class." "It is safe! The first indication of a sufficiently full use being nausea and diaphoresis, one or both."—Rep. of Middlesex Med. Soc., Mass.; Am Med. Jour., 1858.

"I have rarely seen any unpleasant, certainly no dangerous symptoms from its use, and think it is not cumulative in its effects so as to need the close watching that digitalis requires. If the dose is too large, besides the slowness of the pulse always found, there will be nausea or vomiting and sweating. Should it be thought necessary to give a full dose of half a drachm to an adult at once, it can be done with perfect safety; at least, I have so used it."—B. Cutler, M.D., Am. Med. Jour., Oct. 1858.

H. P. Wakefield, M.D., states: "I have used veratrum viride as an arterial sedative, and have found it a reliable article." In every case he has found the pulse to come down. He deems the article far superior to digitalis, etc.—Am. Med. Jour., Oct. 1858.

E. Cutler, M.D., says: "I am satisfied that the veratrum viride is an arterial sedative, having used it as many if not more times than any other medicine."—Am. Med. Jour., 1858.

Dr. H. B. Toland, San Francisco, Cal., says: "Having administered it alone in one of the most painful and unmanageable of the curable diseases incident to the country, rheumatism, particularly in the acute stage, I have found it more efficacious than any remedy that has heretofore been employed; besides controling the action of the heart, it relieves pain, and is more decidedly diuretic than even colchicum."—Pac. Med. Jour., 1858.

Dr. G. M. Staples, Dubuque, Iowa, says his experience satisfies him that "we have in this drug an agent which enables the physician to maintain, for an indefinite time, complete control of the nervous and circulatory systems."—Med. & Surg. Rep., Phil., Aug. 3, 1861.

Dr. A. Hard, Aurora, Ill., has "found it the most certain of all arterial sedatives"—Chicago Examiner.

"We believe that few physicians who understand the virtue of

veratrum viride are willing to dispense with its use."—Med. & Surg. Rep., Aug. 3, 1861.

We might multiply authorities to an almost unlimited extent, but I trust sufficient has been shown to convince the most skeptical "old fogy" that veratrum viride has some "claims that physicians are bound to respect."

Dr. B—— says: "The doctor made a mistake in the proper diagnosis. It was not, I think, a case of uræmia *per se*."

Who said it was? Is it not a little singular that the doctor in his "Criticism" commits the same mistake three several times by using the identical phraseology ("uræmic poisoning,") that the writer used in the published report of this case? I suppose that one at all conversant with medical literature, readily understands the meaning of this term in connection with, or succeeding a case of scarlatina; the merest tyro understands that the urea is not properly eliminated, but is retained, absorbed into the circulation, inducing a fearful train of evils, which, if not speedily attended too, are dangerous in the extreme; in fact, it is regarded as the materies morbi in these cases.

Speaking of "mistake," just here I am reminded of a circumstance which, if does not indicate profound erudition in anatomy, verifies the adage that to "err is human"; it occurred in connection with a post mortem examination in this vicinity but a few months since, where an individual who always attaches an M.D. to his signature, *mistook the spleen* for a *kidney;* and that in a case which he had treated for several months as albuminuria, when the post mortem revealed a healthy *spleen*, one healthy kidney, (only one was examined,) and a vast amount of tubercular deposits in the mesentery and lungs; but for the credit of the fraternity, and the honor of medical schools, I will assure them he had never graduated.

He further says: "As to the question, 'Is it a poison?' it is too absurd to require comment."

By reference to our article, it will be noticed that I did not assume that it was or was not "a poison," but intimated that it was a "mooted question;" yet advoeated a discriminate use of veratrum viride from the stand-point that it was a poison, aye, a "virulent poison."

Let us for a moment examine this question. What constitutes a poison?

"That substance which, when applied externally, or taken into the human body, *uniformly* effects such a derangement in the animal economy as to produce disease."—Med. Dict.

"Any substance which, when applied externally, or in any way introduced into the system, without acting mechanically, but by its own inherent qualities, is capable of destroying life."—Dr. Guy —Elwell Mal. Prac. & Med. Evid., p. 441.

"A poison is commonly defined to be a substance which, when administered in *small quantities*, is capable of acting deleteriously on the body; and, in popular language, is confined to substances which destroy life in small doses."—Taylor on Poisons, p. 18.

I am yet to learn of a single instance of death clearly chargable to its account in all the years that it has been before the profession, while it has been used by thousands of our brethren from Maine to California. The nearest approach to it that I have seen, was that of a child 18 months old, who took, by mistake, 35 drops, and the account says, "It ultimately terminated fatally." Clearly intimating that it did not, like most cases of poisoning, prove directly fatal; if, indeed, it had anything to do with the result.—U. S. Disp., 13th Ed.

We scarcely pick up a medical journal without being startled with "Poisoning by Belladonna," by "Aconite," by "Hyoscyamus," "Digitalis," etc., etc., but who has read, or otherwise heard of a well-defined case of poisoning by veratrum viride, when taken by mistake, or otherwise, in small or large doses?

Dr. Pashley reports a case, where a man in health took, by mistake, *two ounces* of a saturated tincture at a draught, and speedily recovered.—N. W. Med. Jour., Nov. 1857.

Professor Barker, of Bellevue, gives it in ten drop doses, every hour, in typhoid fever.—Am. Med. Mon., Nov. 1857.

Ephraim Cutler, M.D., reports a case where his patient, "a young man, took from 20 to 30 drops at a dose, and was rapidly restored."—Am. Jour. Med. Sci., 1858, p. 313.

Dr. Norwood reports his case of "Daddy Billy," who took one teaspoonful of his (Norwood) tincture at a dose, and was well in a few hours. Vide Pamph. on V. V.

A. B. Clarke, M.D., relates a case of pneumonia, where, by mistake in the directions, his patient got "a teaspoonful every four hours, three large teaspoonsful in twelve hours," and he adds,

"the disease was broken up. He was very comfortable next morning. I saw him in the streets a day or two afterward." He further says: "Here was a case where the veratrum had reduced the pulse 100 per minute. Given by mistake in such large doses, it caused extreme depression and excessive vomiting, yet the patient readily rallied."—Med. & Surg. Rep., Phil., June, 1862.

What other poisonous substance, think you, this man could have taken in quantities six or eight times its maximum dose, with impunity? Would he have "appeared in the street in a day or two afterward" if he had taken like potions of belladonna, digitalis, aconite, or colchicum? Possibly, he might have done so, but he would doubtless have been encased in a wooden overcoat, accompanied by his friends marching to the solemn dirge of the tolling bell.

The doctor says, in conclusion: "That the vaunting of heroic remedies as specifics and cure-alls, savors of quackery," etc.

If this is designed to include the accurate and truthful reporting of cases, and the effects of remedies therein, at which, and only which, this "Criticism" was aimed, then I must plead guilty to the charge; but it is hoped that the great body of intelligent physicians, who are wont to do so, will not cease to occasionally report important and interesting cases and their treatment, notwithstanding.

"Savors of *quackery!*" This inauspicious word of three syllables, how easily written! but to me it has always seemed that it should ever be softly spoken by those who have never availed themselves of any of the advantages so cheaply afforded by our numerous medical colleges and schools for acquiring a sound and systematic medical education.

In conclusion, I will add that I do not regard veratrum viride a "specific," or entirely harmless when administered improperly, regardless of circumstances; but I do contend, that, from the vast array of facts, together with our own experience, it is not a doubtful or dangerous remedy, but is perfectly reliable when given under proper circumstances, and in proper doses, and, with the ordinary care required in the administration of most medicines, that it will seldom, if ever, fail of producing its characteristic effects on the circulation. I believe, also, that it has an important though secondary sedative effect on the *cerebro-spinal* nervous system, and when full and efficient doses are administered, it induces

decided sedation of the great sympathetic nervous system. To my mind, it is these properties which render it one of the most certain and reliable remedies known to the Materia Medica in just such cases and conditions as the one which has called out this acrimonious "Criticism."

ARTICLE IV.—*A Case of Non-Union of Fracture of the Femur, caused by the interposition of Muscle between the fragments.* By C. T. PARKES, M.D., Chicago.

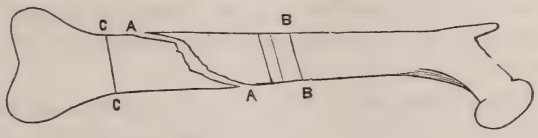
The many points of interest in connection with the case about to be recorded has led me to think it worthy of publication. I was called to attend J. M——, March 16th, 1870, who had been injured by being buried beneath a mass of frozen coal. I requested Prof. M. Gunn to accompany me. We reached the patient's residence four hours after the accident had happened, and upon examination found an oblique fracture of the right femur, a little below the junction of the lower with the middle third of the bone. We immediately applied to the limb proper dressings, making extension with adhesive straps, weight and pulley, with a long external splint to prevent rotation, and short splints to the thigh. An accurate examination as to the exact seat and condition of the fracture was not attempted, but deferred until the subsidence of swelling, etc., should allow a thorough and complete diagnosis.

On the third day after the injury, I removed all the dressing, found the effusion very much reduced, and made a careful examination of the injured limb.

I found very great freedom of motion at the seat of fracture, but failed to obtain one particle of crepitation, either during extreme extension, perfect relaxation or rotation, and finally came to the conclusion—

1st. That there was an oblique fracture of the bone at the point mentioned. The line of obliquity differed from that of any fracture which my experience could recall. A pointed, well-marked spicula seemed to be separated from the outside of the shaft of the bone, giving at first the idea of a very oblique fracture; but upon tracing the spicula upward for one-half or three-quarters of an

inch, it abruptly terminated in a transverse ledge of bone extending across the shaft for the greater part of its diameter, and then shelving off into a depression on the inner and under aspect of the bone. The following rough cut will illustrate the description as given.



A A, line of fracture.
B B, C C, line of section made of bone.

Subsequent events enabled me to demonstrate positively that such was the direction of the fracture.

2d. That some tissue or other had been thrown between the fractured ends, by the force of the injury, and this also was proven by actual demonstration.

A section of this femur placed in my hands showed me the upper end of the lower fragment, completely enveloped by a mass of muscle, half an inch thick and an inch broad.

After the examination was made, I redressed the limb with strips of adhesive plaster, extending up to the seat of fracture, weight and pulley as before. Prof. Gunn saw the case with me again on the next day, and confirmed the diagnosis which I had made. All efforts to bring the broken ends into coaptation were fruitless.

As there was no absolute certainty about the reason for the absence of crepitation; as the want of it might be due to effusion merely; as the normal length, etc., of the limb could be easily maintained, and as it seemed unwarrantable to convert a *simple* fracture of the thigh into a *compound one*, on such uncertain conditions, especially where the soft parts were so terribly contused as they were in this case, it was deemed advisable to await the efforts of nature at repair, for a time at least. So the patient was made acquainted with the condition of the injury, and told that in all probability the fracture would not unite without an operation, but, for the reasons already given, we thought it better to treat the case as an ordinary one for at least four or five weeks, in order to give nature every opportunity to prove our suppositions correct, or to remove the obstructions to coaptation by absorption. The

ends of the fractured bone were bound tightly together by means of compresses and splints to the thigh. The operation deemed necessary, and what we contemplated doing, was to cut down upon the fracture from the outside of the thigh, turn the ends out, remove entire whatever tissue might be found between them, freshen the fractured surfaces, place them in coaptation, and retain them thus by means of a gimlet introduced through the fragments.

At the end of four weeks there was no union—no callus—no attempt by nature at repair. Now that all swelling was completely reduced, the original diagnosis, as to the direction of the fracture, was plainly re-established.

The patient was advised to submit to the operation as described above. He objected, and desired to wait two weeks longer, as he had assured himself that he "felt them knitting together." At the end of the six weeks, another physician of the city was called in consultation, at the request of the patient. I met him at the patient's bedside, and he finally concluded to take the case off my hands, under the supposition, as I understood it, that he could obtain union without an operation of the nature contemplated. Subsequently the doctor kept the patient under treatment for about three weeks, and finally concluded that an operation would be required ere recovery took place. The operation as performed, was just the one to prove that the original diagnosis and suppositions entertained by myself, and confirmed by Prof. Gunn, were in all respects correct. A section, fully an inch and a half long, was sawn from the upper end of the lower fragment, and several sections, amounting in the aggregate to about two inches, were made from the upper fragment. The lower fragment is completely enveloped by a thick layer of muscle, except a small spicula of bone at the extreme upper end.

The patient, as I am told, unfortunately died a few days after the operation, from repeated and severe *secondary hemorrhage*. The bone surfaces present no evidences of absorption, neither have they any deposit of plastic material on them, such as we are told to expect in non-united fractures.

ARTICLE V.—*St. Luke's Hospital. Typhoid Fever, treated with Strychnia. Under care of Jno. E. Owen, M.D.* Reported by C. H. GUIBOR, M.D., Resident Physician.

Mary A. Smith, æt. 18; born in West Indies; admitted October 2, 1868. The commencement of her illness dates about one week previous to her admission. It began with loss of appetite, soreness, fatigue, and a dull pain in the right side. She was listless, without animation, and all exertion was wearisome. A rigor or chill appeared, with which she went to bed. November 25th. The rigor was followed as usual with fever, pain in the back and head. There was more or less diarrhœa. This was the history gathered from her concerning her condition previous to admission.

On admission:—The cheeks were flushed, skin moist, and tongue coated with a yellowish fur, pain in back and head, tenderness upon pressure in right illiac region, abdomen somewhat swollen, pulse 102, respiration 30, slight cough, with increased bronchial secretion, slight dullness over posterior part of right lung. Auscultation elicited mucous rales, sordes here and there along margin of gums.

Treatment:—Milk every two hours, and if patient asked for a drink, cold milk was given instead of water. In addition to this she took a liberal quantity of nourishing soups, and a tablespoonful three times a day of the following mixture:

℞—Acid Sulph. arom. ʒiii, Strychnia Sulph. gr. $\frac{1}{3}$, Syrup Simpli. ℥v. M.

October 3. Intellect dull, the mind wandering as evening approaches, mutters at night. Pulv. Doverii, gr. x was administered, with tablespoonful doses of wine for three or four hours, on account of great prostration. Tongue dry and brown, but red at tip and edges. Pulse 106.

October 4. Rested well; axilla 100½°, pulse 120, tongue moist; 6 P. M., axilla 101°, pulse 126, delirious; 9 P. M., pulse 132—first fecal discharge (natural) since admission; some wine during the night.

October 5. Rested well after 1 o'clock; 8 A. M., axilla 99°, pulse 114; bowels moved; raw oysters added to the other diet.

October 6. Axilla 98°, pulse 120.

October 7. Rested well; tongue still moist, and cleaning off;

11 A. M., axilla 101°, pulse 120; evening, axilla 100°, pulse 102; natural stool.

October 8. Rested well during the night; noon, axilla 100°, pulse 102; evening, axilla 100°, pulse 120. The patient had a copious, dark, greenish and offensive discharge, resembling blood, from the bowels, quickly followed by two others, with nearly as much pure blood. The Resident gave Dover's Powder and Acetate of Lead. The hemorrhage was checked until 5 A. M. (9th), when it returned.

October 9. Axilla (at 9 A. M.) 99°, pulse 120; recommencement of hemorrhage at 2 P. M.; turpentine emulsion and opium were given; 8 P. M., axilla 100°, pulse 114. (About the end of the second week.)

October 10. Axilla 104°, pulse 120, tongue almost entirely clean.

October 11. Evening, axilla 100°, pulse 108.

October 12. Evening, axilla 100°, pulse 108.

October 13. A. M., axilla 98°, pulse 108; evening, axilla 98°, pulse 108.

October 14. Evening, axilla 98°, pulse 108.

October 15. Evening, axilla 98°, pulse 100. (End of third week.)

October 19. Patient is now convalescing, and is able to be propped up in bed, and even to sit up whilst her bed was being made. Abdomen was more or less tympanitic during last ten days. The rose-colored spots were absent.

Silas Heyes, æt. 28, native of England, was admitted October 5, with the usual symptoms of typhoid fever. He was placed upon liquid food, viz., soups, good milk, and in addition to this the acid and strychnia mixture—tablespoonful three times daily.

October 6. Morning, axilla 98½°, pulse 96; evening, axilla 102°, pulse 112. (Somewhat delirious during the night.)

October 7. Morning, axilla 102°, pulse 108; evening, axilla 102°, pulse 102. Pil. Cath. Co., No. 2, during afternoon. Rose-colored rash; tympanitic; tenderness in right iliac region; bowels have not moved in five days. (End of first week)

October 8. Bowels moved during the night; A. M., axilla 101½°, pulse 102; evening, axilla 102°, pulse 102.

October 9. Rested well; A. M., axilla 99½°, pulse 102; evening, axilla 102°, pulse 102.

October 10. A. M., axilla 100°, pulse 96 (good night); night, axilla 101°, pulse 102.

October 11. A. M., axilla 100°, pulse 96 (rested well); evening, axilla 102°, pulse 102.

October 12. A. M., axilla 99½°, pulse 100; evening, axilla 100°, pulse 96.

October 13. A. M., axilla 100°, pulse 102; evening, axilla 101½°, pulse 102.

October 14. A. M., axilla 99½°, pulse 96. (End of second week.)

October 15. P. M., axilla 101°, pulse 96.

October 16. A. M., axilla 97°, pulse 96. Bowels not moved for seven days. Castor oil, ℥ss, which operated in a short time. Evening, axilla 98°, pulse 96.

October 17. A. M., axilla 98°, pulse 98; evening, axilla 99°, pulse 90.

October 18. A. M., axilla 98°, pulse 84; evening, axilla 97°, pulse 96.

October 19. Axilla 98°, pulse 84.

October 20. Axilla 97°, pulse 78. (End of third week.)

During the first ten days, the Resident, thinking that the strychnia mixture caused some muscular twitching, discontinued it for twenty-four or thirty-six hours. The tongue became brown, dry and cracked. Upon the renewal of the medicine, the tongue became again moist.

[During the last four years the above has been the treatment of typhoid fever, both in the hospital and in my private practice. There is one noticeable feature in cases treated by strychnia, viz., the dry, brown tongue soon becomes moist, and remains so during the treatment. In several cases, in order in some degree to determine the influence of the mixture, it was discontinued from twenty-four to forty-eight hours. The tongue soon became dry and brownish, but moist again upon its re-administration. In only one case of those treated was the strychnia used alone. The result was the same as when the mixture was used. We have had no opportunity of determining the influence of the mineral acid uncombined with strychnia. Possibly the mineral acids, so long and advantageously employed in the treatment of continued fevers, might have some influence, but we are inclined to believe

that the change in the appearance of the tongue is effected mainly through the agency of strychnia, by increasing the nutritive and assimilative functions of the system. Only one case was complicated with intestinal hemorrhage, and this is the only case in which turpentine was used. It was employed in this one only to combat the hemorrhage. In relation to pulse and temperature, the two cases reported are for the most part typical of the others. Of course the employment of any remedy in the later stages of typhoid fever must more or less disappoint us. J. E. O.]

ARTICLE VI.—*Hydrate of Chloral as a Remedial Agent—Effects of its Continued Use.* By * * C.

It is with a very genuine hesitation and reluctance that I venture to offer to the readers of the *Journal* a few facts, illustrating the effects of the continued use of the above-named remedy, as observed in one special case, though not thereby inferring that they would be similar in every other case. I am not only a non-professional writer, but also a Southerner, and consequently, if the sage exposition (more learned than wise) of Dr. McElroy* is to be believed, my "molecular forms of structure" vary so much from the normal Yankee standard, and from those of my possible readers, as perhaps to differentiate wholly our method of inductive reasoning. But by sticking to simple facts, the language of which is pretty much the same everywhere, I may render myself intelligible. This remedy (hydrate of chloral) being now in a manner on its trial before the profession, any instances of unmistakable facts, illustrating peculiar effects, may not be useless.

The patient, whose case I propose to refer to, is a lady who abandoned quite lately the use of opium, after indulging moderately in what is termed the "opium habit" for several years.

Suffering in consequence from obstinate wakefulness and distressing nervous irritability, she was advised, by a physician of the highest professional standing, to use hydrate of chloral, as potass. bromide, which she had previously taken, did not seem to meet the indications. She commenced using the chloral on

* Vide Chicago Med. Journal, May No., p. 284.

January 1st, of this present year (entirely dropping the other remedy), beginning with thirty grains per diem, or rather per noctem, and being, at that period, in all respects, save those I have mentioned, in apparently perfect health—appetite good, digestion unimpaired, secretions and excretions all right. In about two weeks from that time—30 grs. chloral hydrate having been taken each night—the patient began to suffer from slight irritability of the stomach, and inability to retain ordinary food, which increased rapidly until the functions of this organ became so impaired that it would tolerate neither hot drinks—such as tea and coffee—nor any solid food. She suffered greatly also from burning heat and painful tenderness in the epigastric region, the least pressure causing great uneasiness. This sensation of intense heat daily increased, digestion seemed destroyed, the craving for ice-water or ice itself was continual, yet it afforded no permanent relief. In a short time after this nothing but iced sago broths or jellies could be retained by the stomach for a moment. About the twentieth of February, acute inflammation declared itself in the eyes of the patient; such was the intense heat, that tear-drops, as they formed and fell, felt to the burning and inflamed eyeballs like tiny hail-stones or drops of ice-cold water. The throbbing of the temporal artery announced determination of blood to be the immediate cause of the inflammation, as also did the bright florid color of the inflamed parts. As the inflammation increased, the secretion of tears was suspended, and there was exudation from the eyes, first of a thin transparent matter, which afterwards became translucent and acquired greater consistency. It must have been highly fibrinous, for when partially dried on the eye-lashes, it could easily be drawn out, and by a slight twisting motion of the fingers, actually spun into short threads. Comparatively little abnormal matter was thrown up from the stomach, yet the appearance of that which was thus expelled, was really remarkable. It resembled from first to last very minute pieces of yellowish white and very thin blotting paper, somewhat curled or crimped, floating in a thin translucent fluid. One of these small floating particles I placed under a magnifying power of 10,000 diameters, and saw innumerable fibrillæ crossing each other at every conceivable angle, and apparently adhering together, though not very tenaciously. Symptomatic fever did not precede, but followed the inflammation. It was characterized by a pulse feeble yet hard,

often jerking, skin dry and hot, with occasional sweats at irregular intervals; secretions suppressed; weakness of patient extreme at times, yet alternated with fits of great feverish excitement. The poor patient had unluckily read some of the so-called professional writings of Dr. Ludlow, till on this one subject (the opium habits, and its effects on tissue and the vital organs) her mind was fairly befogged. For a long time she actually supposed these phenomena to be a necessary sequelæ to the abandonment of opium, until observing the steady onward march of the inflammation, with its train of attendant evils, foreboding danger and death, her brain rallied sufficiently from its fatalistic nonsense to secrete a modicum of common sense, which immediately suggested that this sort of thing had gone far enough—that other than merely palliative treatment was demanded, and that as a first step it might be well to discontinue the use of such a powerful stimulant as chloral hydrate. Common sense was listened to, and, to the lady's surprise, in less than forty-eight hours after the chloral was discontinued, the inflamed organs experienced sensible relief. I have not alluded to the excessive *pain* which the patient felt in the eyes and the stomach, for I supposed every reader would infer the presence of pain from the fact of intense inflammation. This pain abated; and, skipping over successive steps, I may say that from that day the process of recovery commenced, some simple hygienic remedies being used to facilitate its progress. The organs of secretion resumed their functions, fever diminished and finally disappeared, and in little over two weeks' time, the inflammation and every trace of it had vanished, the *vis medicatrix naturæ* having, almost entirely unassisted, accomplished the cure in this pure and healthy organization as soon as the irritant cause was removed. Poultices of slippery elm powder and rosewater applied to the eyes, diluent drinks, and occasionally a mild aperient taken inwardly, with frequent bathing to equalize the circulation, comprised the whole treatment. If I except a remaining inability to secure regular and natural sleep, the patient is now in excellent health.

Have we not good reason to suppose that the chloral hydrate was the exciting cause of all this inflammation, acting, no doubt, as a chemical irritant?

Whether it acted locally, that is, directly upon the affected organs, as a disciple of "solidism" would perhaps assert; whether it entered into the circulation as a *materies morbi*, carrying with

it irritation, and perhaps altering by degrees the tonicity of the arteries; or whether, lastly, its primary effect was on the nerves, communicating by sympathy with the vascular system, I must leave to better pathologists than myself to determine. Yet, it does not seem very unreasonable to infer, from the knowledge we have as to its resultant effects upon the blood, that continued use of an agent like chloral might, in time, produce destructive metamorphosis of the delicate nerve tissue, fed and sustained, as it would be, by this chemically altered blood. But it hardly becomes me to offer any crude hypothesis of my own, addressing, as I am, those who are so greatly my superiors in scientific knowledge.

I would merely add—

1st. In no previous illness of this patient had there ever been any appearance of inflammatory diathesis.

2d. From first to last no other remedy (except the simples I have mentioned) was used but chloral hydrate.

3d. The patient whose case I have reported was the writer of this article, who is therefore sure of her *facts*, even if wrong in her inferences.

It is, lastly, only justice to say that the physician who prescribed the chloral did *not* do so as a "specific," but merely to meet the indications of the case at the time; nor is he responsible for the continued use of it, since residing in a distant city, he was not again consulted by his former patient.

ARTICLE VII.—*Case of Malposition of the Bladder.* By E. DOOLEY, M.D., Selma, Ill.

March 23d, 1871, was called hurriedly in the night, four miles out, to attend Mrs. McM., in her fifth confinement. Previous labors had been very short—"never could get a doctor in time." Found patient in hard labor, worrying about its tediousness.

On examination, found os fully dilated, with brow presentation. With strong uterine contractions, delivery was soon effected, and the rousing cry of a large, fine looking boy greeted our ears. But on examination, I discovered, on the lower, or coccygeal

portion of the spine, a ruptured, encysted tumor, with a heavy, corrugated, scrotum-like covering, excepting a space of about an inch in length and one-fourth as wide, elliptical in shape, about the middle of the tumor. This space was covered with mucous membrane. At this point the tumor was ruptured, probably during the transit through the maternal organs, and the contents had escaped. The legs were firmly flexed, heels almost touching the buttocks, and very rigid and immovable. Diagnosis, spinal tumor.

Saw the little sufferer dressed, amidst his piercing and continuous cries, prognosticated unfavorably, and left.

Called the next evening, and found the poor little unfortunate still crying, and was told it had never ceased, although paregoric had been given freely. On inquiring for the usual evacuations, was told that its "bowels had moved," but it had "made no water." Was disposed to question this report, as I was quite sure I could detect the oder of urine. Penis, scrotum, and anus apparently normal, but, examining closely, found the penis impervious. Turning again to the formerly collapsed but now partially filled tumor, found a dark, amber-colored fluid dribbling away from its ruptured orifice, with the unmistakable odor of urine. Concluded this must be the bladder thus curiously located on this otherwise well developed infant.

It lived three days, and then sank, exhausted by convulsions and unceasing pain, consequent upon the excoriations and inflammation within and around the tumor or bladder.

Selections.

On the Therapeutic Value of Diaphoresis. By Dr. W. Leube, Lecturer and First Assistant to the Medical Clinic, Erlangen.

[*Deutsches Archiv f. klin. Med.*, vii, 1, p. 24, 1870.]

These remarks are appended to a longer article intended to prove, by a series of very careful clinical and chemical investigations, a reciprocal bearing or antagonism between the cutaneous and the renal secretions. Hence the author confines himself, in discussing the therapeutical effects of diaphoresis, to renal affections chiefly.

If we accept as a fact the point developed by the author's investigations: that the secretions of the kidney and of the skin bear a formal reciprocal relation to one another, the therapeutic action of diaphoresis in cases of disturbed or suppressed function of the kidneys becomes of far greater importance than we could hitherto ascribe to it; its symptomatic indication grows an *indicatio morbi;* it becomes a therapeutic measure whose efficacy corresponds equally to practical and physiological experience. Among the remedies recommended against a disease, that one deserves preference which has been proved statistically, by large series of results from unbiased observations, to be most efficacious, whether its mode of action is explained or not; in the latter case, our failure to understand the action is owing to deficient knowledge of the pathological process or deficient physiological reasoning. But when, as in the case of Bright's disease, a number of alleged remedies are proposed in competition, we must always, if we wish to abstain from sentimental therapeutics, give preference to the one that is backed by physiological experiment. In this respect, diaphoresis holds the first place among the remedies recommended against diseases of the kidneys.

Although he does not doubt the usefulness of diaphoresis in all renal affections, the author speaks chiefly of chronic Bright's disease, because it is the most frequent, and the one concerning which the greatest number of accurately observed cases are recorded. Complete cure of well determined chronic Bright's disease is not brought about by diaphoresis, any more than by any other remedy; it is well known to be an extremely rare exception. We must not expect too much from any remedy; no one hopes for a restoration of destroyed parts, or full functional recovery of the lungs in chronic pneumonia; we content ourselves with relative functional capacity. In the kidney, the remedy is intended to remove the albuminuria; the kidney, which after the cessation of the inflammatory process, is contracted, but may still contain enough working tissue to avert the dangers of suppression of the

urinary excretion, should be free from congestion and phenomena of abnormal conditions of blood-pressure. According to the beautiful experiments of Stokvis, the existence of a hæmatogenetic albuminuria is highly improbable, whilst the nephrogenetic albuminuria can be shown to be due solely to lesions of circulation in the kidney, and not to alterations of its epithelium or other tissue elements. The cases observed in this clinic, as well as those reported by Liebermeister, prove that diaphoresis is capable of achieving complete success in a number of cases,—or at least that degree of success which is possible under the special conditions of the case.

Much more evident is the utility of energetic diaphoresis in *uræmia*. So long as it had not been demonstrated that the skin is capable of excreting a considerable amount of nitrogenized products, the dangers of so severe a remedy were, rightly enough, anxiously weighed in this serious disease; the more so as until lately the derivatives of urea were considered as the true poison in this condition. Physiological experience now compels us to deny those substances all importance, and to recognize as the cause of uræmic symptoms the retention or deficient excretion of all the effete matters of the body, among which it is likely, (according to Voit), that potash plays an especially prominent part. But whether we adhere to the older theory, or the new: ammonia, urea and potash can all be withdrawn from the blood by means of powerful diaphoresis; the mechanical conception, also, of the nature of uræmia, based on the hypothesis of œdema of the brain, offers no *a priori* objection to the diaphoretic method, as the latter could only favor the absorption of the dangerous œdema. Hence the author believes that, in view of the unreliable character of all the remedies recommended against this affection which is considered to be incurable, an immediate *energetic* diaphoresis is the first and only measure indicated, even though a negative result in this pernicious disease would seem thus far to oppose this train of reasoning.

Difficult to explain, but the more surely established by experience, is the purely systematic *hydragogue*, and in some cases of dropsy permanent, *effect of diaphoresis*. Refraining from hypotheses on the subject, the author recommends a *practical method of employing diaphoresis in dropsy*, which is far less exhausting than the usual total "packing," and yields no less gratifying results. Packing the body in woolen blankets after a hot bath is in many cases of high-graded dropsy, especially in heart disease, impossible, certainly very irksome, and possibly dangerous by reason of exhaustion even to fainting; the author has therefore employed diaphoresis *locally*. He places, for instance, the lower extremity in a bath of 98 deg. F., increasing the temperature to 108 deg., and after allowing it to remain in the hot bath for half or three-quarters of an hour, wraps it in india-rubber cloth, in case of very sensitive skin interposing a piece of linen.

Over the rubber cloth is rolled a thick flannel bandage, and perhaps a small woolen blanket; and, if the patient will bear it, the extremity thus enveloped may be subjected to a gentle kneading. In this manner the patients lie for four to six hours, sometimes the whole night, without discomfort; sometimes only they would complain of itching, especially when the india-rubber was in direct contact with the skin. When this process is repeated and continued daily without interruption, the absorption of lighter grades of œdema can be accomplished in a few days; and even in cases of very considerable dropsy, the author effected a diminution of the circumference of the leg by ten centimetres in four days. Although this local diaphoresis has not as decisive an effect as the general method, it can be recommended for its simplicity, as well as for the fact that the temperature of the limb which is to be made to perspire can be elevated higher than would be possible, without danger and discomfort, in a total bath.

Finally, the author recommends, on the strength of a large experience, that the bath be given in the morning; perspiration is more easily effected in the morning than after noon. This point has been determined by observations of pulse and respiration, before and during the packing, the figures always being considerably higher in the afternoon or evening, when the sweating also gives more discomfort to the patient, than in the morning.—*St. Louis Medical and Surgical Journal.*

Bromide of Potassium in Croup. By S. B. Kieffer, M.D., Carlisle, Pa.

The peculiar and acknowledged action of the bromides would indicate that they have a special control over the various nervous affections of the larynx, trachea, and other organs of the throat; but their special use in membranous croup has hitherto not been well established.

If, in this short paper, it shall appear that in this disease also, which has always been to the profession the occasion of much concern, there is a special disposition to yield to their power, I trust the profession will give the subject such attention as will demonstrate fully its truth. More than four years ago, my friend Dr. W. W. Dale was called, in my absence, to a case which he regarded as one of genuine membranous croup, and for which he prescribed an emetic, followed by repeated doses of calomel. On the following morning we saw it together, and the correctness of his diagnosis seemed very evident; but the little patient, a year old, had found no relief. Under the peculiar constitutional habits of the child, we both regarded the case as hopeless, and expected a rapid decline. For reasons which I shall explain hereafter, and as a matter of experiment, I gave the following prescription:

℞ Brom. of Potassium, - - - - - - - - gr. xx;
Chlorate of Potassa, - - - - - - - - gr. x;
Ipecac, - - - - - - - - - - gr. j;
Ext of Liquorice, - - - - - - - - - ʒss;
Water, - - - - - - - - - - fʒijss.
M. S.—A teaspoonful every hour, with directions to report after eight hours.

After the fourth dose the child became easier, the breathing less difficult and dry, and after the fifth hour it fell into a quiet and comfortable sleep, lasting three hours, when we saw it, and, to our mutual surprise, found it greatly relieved and much better. The treatment was continued, and at the end of the third day the patient was discharged. Since that time, both Dr. Dale and myself have depended exclusively upon this treatment, more or less modified according to circumstances, and *uniformly with success.* So confident am I that, when timely and judiciously administered, it has the power of arresting both the inflammation and the deposit of false membrane, that I now approach my patients, thus suffering, without fear, and with little anxiety. As there is no nausea, and the disease yields without emesis, it had not occurred to me to have demonstrative proof of actual membrane formed, until several months ago, when I was called into the country to see a patient aged four years, and who had now been suffering distressingly to the fifth day. This case, it seemed to me, was unmistakably one of membranous croup, and had been treated regularly by emetics, mild cathartics, blisters, etc., but it had stubbornly resisted them all, and was steadily growing worse, while the symptoms were apparently of the most aggravated character. My prognosis at this stage was decidedly unfavorable; but I gave the patient the bromide, in mixture, as before indicated, and on the following morning found it apparently much better. I now gave it, by means of the steam atomizer, a solution of bromide of potassium and chlorate of potassa topically, and continued the medicine, as before, every hour. On the following morning I found marked improvement, and ordered the medicine to be continued; and now, on again using the atomizer, assisted by my friend Dr. E. A. Grove, violent coughing ensued, and piece after piece of disintegrated false membrane was thrown off, demonstrating beyond a doubt its actual presence. The medicine was continued, and at the end of the fourth day the patient was regarded as out of danger, and on the following day was discharged.

I could not, after experiments from good authority, regard the bromide of potassium as *a solvent*, so to speak, of false membrane; nor have I ever thus regarded it; but I do believe, and on this principle I have prescribed it, that just in proportion as it is a *sedative* to the cerebro-spinal system directly, so it is a stimulant, indirectly, to the nerve-filaments and circulation of the throat; and, as the inflammation in membranous croup is usually, if not

always, of the asthenic character, it has the power by its specific action of equalizing the circulation and arresting the fibro-albuminous deposit. And when the disease is not too severe, or has not progressed too far, the system thus, by its own inherent power, will be equal to the task of repairing the evil.

The experience of my friend W. W. Dale, M.D., who has been using the same treatment, though in the earlier stages of the disease he carries the use of ipecac to nausea, and frequently combines quinine with the mixture (a necessity rarely called for, I think, when the nausea is avoided), is substantially the same; and I here speak by his authority when I state that membranous croup, spasmodic croup, and laryngitis, alike, have lost for him, as they have also for me, nearly all that dread and anxiety with which he once met them.

I trust my professional brethren will give it a trial.—*Medical Times.*

Therapeutical Value of Chloral. Extract from a paper read at a meeting of Liverpool Chemists' Association, held December 22, 1870.

If we review the pages of the medical journals for the therapeutical effects of hydrate of chloral, we shall find many cases where its action has been attended with marvellous results. There does seem not a little danger of its being erected into a kind of panacea for all the ills that flesh is heir to—of its true worth and fame suffering from too indiscriminate use, and from the administration of some of the impure compounds which are being supplied. Its value, however, is too real for actual collapse by its abuse; but its repute may be, and doubtless has been, dangerously compromised.

We find it employed in cases of "maniacal paroxysms," "delirium tremens," "traumatic tetanus," chorea, diarrhœa, whooping cough, convulsions (epileptic or otherwise), with more or less benefit; it allays vomiting, and prevents sea-sickness; in puerperal mania it is well reported of; in fact, as a sleep-compeller it is, in a very large number of cases, unrivaled; for while in power opium alone can be compared with it, there is this superiority to opium, that its use entails no unpleasant after symptoms, no head-ache, no nausea, no anorexia, no constipation, whilst the sleep it produces is gentle, calm and continued; at least, this is the general rule, but, of course, there are exceptions, and medical men complain that its administration is attended with uncertain results, and that its quality is not so good as it was when first

introduced; but even with true hydrate of chloral we must expect to find exceptional cases, so long as human beings differ so greatly in temperament, constitution, and sensibility to the action of medicine.

That hydrate of chloral ought to be perfectly pure when used in medicine is unquestionable; the substitution of alcoholate is quite sufficient to produce most of the ill effects attributed to chloral. In fact, instead of being a hypnotic, it has a tendency to produce mental excitement, as ordinary stimulants.

The dose of hydrate of chloral is from 5 grains to 30 or 40 grains, according to the purpose for which it is required. A case is on record where 100 grains were taken accidentally without any evil results; but I am informed that there is danger in continued small doses. Very unexpected results have, in a few instances, occurred. And here I would strongly caution pharmaceutists not to prescribe its use themselves, or supply it to the public without the sanction of a medical man.

Hydrate of chloral has been successfully administered as an antidote to strychnia.

Hydrate of chloral cannot, in consequence of its chemical properties, be administered in the shape of pills or in the form of powder; it is, therefore, necessary almost to confine its use to solutions. For dispensing purposes, Liebreich recommends a solution of the hydrate in its own weight of water. In small doses it can be given without the addition of a corrective, but simply dissolved in distilled water.

There are several pharmaceutical preparations in which the hydrate of chloral is disguised, or its taste modified, in various ways. Of the syrups, containing 10 grains of Liebreich's hydrate in each dram, one made with syrup. pruni virg. is used in America; it is most palatable. Another is made with syr. tolu; others with syr. flor. aurant., syrup. cort. aurant. (as suggested by Liebreich). Another is flavored with almonds (Ferris). There is also a draught containing half dram chloral, with syrup tolu, tinct. ginger and peppermint water. Lozenges containing 1 grain hydrate of chloral in each, are manufactured by Messrs. Meggeson & Co:

Spiritus chloralis is made by Savory & Moore. It has a very agreeable taste and smell, but I was not able to obtain any deposit upon evaporating a little.

Limousin's capsules are known to contain alcoholate of chloral, because true hydrate cannot be secured in a gelatinous envelope.

In describing and dispensing hydrate of chloral, it should be borne in mind that no corrective with alkaline reaction can be employed with it, because such an administration would bring about the transformation of the substance.

In concluding this paper, I must add that I have no interest whatever in putting forward the claims of Liebreich's manufacture, further than a feeling of moral duty to the medical profession, pharmacists and the public, together with the *conviction* that other manufactures which have come under my notice do not attain the desired standard. It appears that the importers of this article now know a guaranteed hydrate of chloral and an unguaranteed hydrate of chloral. There is a guarantee to the consumer, which is the protection of the hydrate manufactured under Liebreich's supervision: this is a registered trade mark. It is offered in three forms—cake, crystal and powder; but the action of the cake is more to be relied upon. Each product should be kept in well-stoppered bottles. The large quantity which the bottles with the registered trade mark contain is, I think, a drawback to its more universal application; and I think, if the agents of this manufacture could be induced to supply it in smaller bottles,—say from 1 oz. upwards,—with the registered label on each bottle, and could produce it at a cost more in proportion with the competition, they would not only further the objects of the discoverer by more satisfactory and uniform results being produced, but also benefit mankind in general.—*Pharm. Journ., Lond., Jan.* 7, 1871.—*Am. Jour. Pharmacy.*

Treatment of Intermittent Fever.

Dr. S. C. Lacey, Laceyville, Pa., sends us the following plan of treatment of intermittent fever:

℞. Gelseminum, Fld. Ext., - - - - } āā ℥ i.
Liquor Potass. Arsenit. - - - - }

Dose—20 drops three times per day, letting the patient drink freely of hop tea during the interval, or not, as you see fit.

I have treated a large number of cases both East and West, and never knew a patient to have more than one chill after commencing the medicine. I continue the medicine for one week, then I omit for five days, and then give two days, and then omit five days again. Do that way for four weeks and then discontinue the medicine.

I think there is nothing like gelseminum in the treatment of bilious remittent fever, also in infantile remittent. In uterine hemorrhage it is a valuable remedy. I have also found it efficacious at the commencement of labor and when the pains are inefficient, combined with fluid ext. ergot.—*Jour. Mat. Med.*

Proceedings of the Annual Convention of the American Medical Association.

FIRST DAY.

The twenty-second Convention of the American Medical Association was opened in Pacific Hall, San Francisco, Cal., on Tuesday morning, May 2d, at 11 o'clock. The present officers are: President, Dr. Alfred Stillé, of Pennsylvania; Vice-Presidents, Dr. J. S. Wetherby, of Alabama, Dr. Henry Gibbons, of California, Dr. G. J. Heard, of Texas, Dr. Samuel Willey, of Minnesota. Permanent Secretary, Dr. W. B. Atkinson, Philadelphia; Assistant Secretary, Dr. Joseph Tucker, of California; Treasurer, Dr. Casper Wistar, of Pennsylvania; Librarian, Dr. F. A. Ashford, of District of Columbia.

Dr. Arthur Stout, of San Francisco, called the meeting to order, and introduced the President of the Association, Dr. Alfred Stillé.

President Stillé received a warm greeting from the meeting. He introduced the Right Rev. Bishop Kip, of California, who invoked Divine blessing upon the proceedings of the Convention.

The report of the Committee upon Credentials was called for. Dr. Stout, the Chairman, delivered an address, in which he heartily welcomed the members to the hospitalities of California.

Dr. Stout reported that the registration had not yet been completed, two hundred members having thus far been registered.

On motion, the Committee were given until Wednesday to present their report.

A letter was read from Prof. S. D. Gross, of Philadelphia, ex-President of the Association, regretting his inability to attend the sessions of the Convention. It was ordered spread on the minutes.

On motion of Dr. Stout, all members of the California State Medical Society not delegates were invited to sit as members by invitation.

The President commenced his annual address by calling attention to the vast change which had taken place in the State of California during the quarter of a century of the existence of this Society. He then adverted to the objects for which the Association was formed, and the progress which had been made in the profession, as he felt, by its agency. Further maturity, however, he said, was needed, a higher growth was to be looked for; the idea of development in education is as natural and as necessary as it is in the growth of an organized being. In speaking of advance in professional education, he considered it a fact that, although scarcely one of the many reforms recommended by the Association had been formally adopted by the colleges, medical

education had been continually improving. Obstacles to farther and more rapid improvement exist and must be met.

"Either some one institution must be endowed so as to be rendered independent of its rivals, or a number of the leading schools must agree together to adopt a curriculum in harmony with the present state of medicine, and with the system of instruction pursued in the principal schools of the world. Of these two conditions there seems no prospect whatever that the first can be fulfilled. The execution of the second depends entirely on the good will of the colleges that are interested in the decision. No one can act alone; and every effort to induce several of them to enter into a compact which shall be of mutual obligation, and not to be abrogated without the consent of all the contracting parties, or at least a large majority of them, has hitherto proved unavailing. What motives, if any, will determine the adoption of a different policy, may be conjectured, but need not be suggested; yet it is safe to affirm that if the profession at large were to lend their support to those colleges and only those which determine to carry out essentially the recommendations of the conventions of medical teachers held at Cincinnati in 1867, and at Washington in 1870, we should soon enjoy the benefits of a system of education which would place the American medical profession upon a perfect equality with that of the most favored country."

Dr. Stillé spoke, in sequence, of quackery, of the question of women entering the profession, of colored physicians, of the granting of diplomas, of the right of colleges to revoke the diplomas of men who leave the ranks of legitimate medicine for quackery, and of alcoholic stimulants as medicines.

At the conclusion of the address, a vote of thanks was accorded to the President.

Several invitations of an agreeable nature were extended to the members of the Association, which were accepted.

The reports of a large number of committees were expected. But few of them responded to the invitation of the Chair, and those principally to gain time. The report "On Protest of Naval Surgeons, etc.," by Dr. S. W. Ruschenberger, U. S. N., was read, and was laid on the table. That "On a National Medical School," by Dr. Francis Gurney Smith, of Pennsylvania, was received and adopted. That on "Criminal Abortion" was referred to the Committee on Obstetrics. That on "Medical Education" was sent in printed by Dr. Geddings. That on "Prize Essays," by Dr. T. M. Logan, was read. The reports on the "Climatology and Epidemics" of various States, were for the most part continued till next year. That on the "Climate, etc., of California," by Dr. F. W. Hatch, was referred to the Special Committee on the subject. A voluntary communication on "The Operations for Stone," was referred to the Committee on Surgery.

After some discursive remarks by various members, the meeting was adjourned to 10 A. M., on Wednesday.

SECOND DAY.

The Association met at 10 A. M., pursuant to adjournment. The attendance was large.

The minutes of Tuesday's session were read and approved.

The Committee of Arrangements and Credentials reported the names of accredited delegates and permanent members of the American Medical Association. The following members were present from the New England States:

Connecticut.—E. R. Hunt, W. Woodruff, J. W. Phelps, Chas. L. Ives, Levy Ives, L. N. Beardsley, F. L. Dibble, W. B. DeForest, B. H. Catlin, Alfred North, Moses C. White, Sheldon Beardsley, H. D. Holton, Henry McKnight.

Massachusetts.—George N. Thompson, H. R. Storer, E. Cutter, E. B. Moore.

New Hampshire.—John W. Parsons, J. L. Swett.

Rhode Island.—L. F. C. Garvin, G. L. Collins.

Dr. Ames, of Minnesota, moved that the report, with the exception of that portion referring to the members by invitation, be accepted.

Dr. Storer moved to amend the motion, in that the report be accepted as a whole, and not as at present adopted.

Dr. Toner desired to have the relations of Dr. Thomas (of Philadelphia) to the Association defined.

Dr. Henry Gibbons doubted the propriety of catechizing members, after the Committee had accepted their names. It would establish a bad precedent, aside from creating unhealthy wrangles. He suggested the reference of the Thomas case to the Committee on Ethics—but he believed such a Committee did not exist.

Dr. Pinkney attempted to define his position, etc., but was declared out of order.

Dr. Pancks moved that the case of Dr. Thomas be referred to the Committee on Ethics; if none existed—holding over from last year—one might be appointed.

The President stated that Dr. Thomas was in full communion with the Association; no case for consideration existed.

Dr. Toner moved that the vote whereby the report of the Committee on Credentials was accepted, be reconsidered.

Declared out of order.

Dr. Thomas arose to a question of privilege, and enumerated the Medical Societies in Philadelphia with which he was connected.

Dr. Storer remarked that Dr. T.'s explanation did not satisfy him. It showed that the gentleman was in better standing than

he had supposed, but he favored the reference of the matter to the Committee on Ethics.

A delegate suggested that Dr. Pearson, of Woodland, occupied questionable relations with the Association.

Dr. Johnson, of Missouri, endorsed Dr. Pearson as a highly educated physician and able practitioner.

The Dr. Thomas case was finally referred to the Committee on Ethics by a vote of 85 to 15.

Dr. H. Gibbons stated that there was no Committee on Ethics in existence.

The President, by a vote of the Association, was authorized to appoint a Committee on Ethics at an early day.

Dr. Logan presented a list of members of the San Francisco Medical Society, and moved that they be declared members of the Association by invitation.

Dr. Stout favored the motion, and recited cogent reasons for his action. California, situated on the verge of the continent, and yet in her infancy, failed to afford some of the facilities for progress found in the East. Medical Societies were not numerous here, and chances for physicians to become eligible for membership to the National Society were comparatively few. It was for this reason that he supported the motion.

Dr. Simmons, as one of the Committee on Credentials, would have been pleased to recommend the gentlemen, for membership, but found the Constitution prohibited such action.

Dr. Davis, of Chicago (Ill.), said that there were other medical gentlemen, outside of those in the list read by Dr. Logan, who were desirous of becoming members of the Association. The speaker did not favor excluding the gentlemen, by any means. Let them come in and witness our proceedings; extend cordial invitations to them to mingle with members of the Association; but they cannot be admitted as members. The Constitution would not permit the passage of the motion offered by Dr. Logan —and the Association must cling to the Constitution.

Dr. Logan's motion was lost, and a motion to invite the applicants to visit the meetings of the Association prevailed.

Dr. Yandell, of Kentucky, read a report of the Committee on Medical Education, prepared by Dr. Geddings, of South Carolina. In a private letter, Dr. Geddings notified the Association that the entire report was written by himself, without consulting other members of the Committee.

On motion, the report was accepted and referred to the Committee on Publication.

In the discussion of the report, considerable time was occupied by appeals from the decisions of the Chair, etc.

Dr. Henry Gibbons extended still farther invitations to the members, which were accepted.

Dr. Gibbons read an article on Vaccination, published in a homœopathic journal,* by Dr. Henry A. Martin, with his official title as Chairman of Committee on Vaccination of the American Medical Association affixed. The opinions enunciated by the writer seemed to grate harshly on the ears of members of the profession. When he had finished reading the article, Dr. Gibbons moved for a reconsideration of the vote, whereby Dr. Martin was continued Chairman of the Committee on Vaccination for another year. The gentleman had insulted each and every member of the Association by the publication, and in justice to themselves immediate action should be taken in the matter.

Dr. Storer was acquainted with the circumstances of the case, and felt that the Association should suspend judgment until Dr. Martin could be heard.

Members called for a second reading of the article.

Dr. Gibbons read the first few lines.

Members—"That's enough."

Dr. Dawson said that the article was an insult to every member of the Association, and moved that Dr. Martin be expelled as a member of the Association.

Dr. Bibb offered an amendment, that a committee of three be appointed to prefer charges against the gentleman.

Dr. Davis suggested the reference of the matter to the Massachusetts State Medical Society, to which Dr. Martin belonged.

Dr. Johnson gave Massachusetts a shot for her delinquencies; many of the members consorted with homœopathists in that State, hence nothing would be accomplished by referring the matter to the local society there.

Dr. Stout offered an amendment to Dr. Bibb's motion—that the matter be referred to the Committee on Ethics.

Dr. Gibbons' motion to remove prevailed; Dr. Stout's amendment to refer the matter to the Committee on Ethics was also passed.

The Committe on Ethics was appointed by the chair, and consists of Dr. Henry Gibbons, Dr. Davis, of Chicago, Dr. F. S. Smith, Dr. Parsons, and Dr. Toner.

A motion to refer all questions of membership and character to the Committee on Ethics prevailed.

Several protests from Connecticut, Massachusetts and New York were referred to the Committee on Ethics.

Dr. T. M. Logan, of Sacramento, Chairman of the Committee on Prize Essays, reported in favor of awarding prizes as follows: First prize—to E. R. Taylor, of Sacramento, for essay upon the "Chemical Constitution of the Bile." Second prize—to Benj. Howard, M.D., of New York, for essay upon "The direct method

* The New England Medical Gazette, January, 1871.

of artificial respiration for the treatment of persons apparently dead from suffocation, from drowning, or from other causes." Several other essays were received and considered.

On motion, the Committee on Prize Essays were instructed to return essays to writers when desired.

Dr. Davis, of Chicago, member of the Committee on Resolutions, appointed at the meeting of the Association in 1869, submitted an elaborate report, closing with the following resolutions:

Resolved, That each State and local Medical Society be requested to provide, as a permanent part of its organization, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine, and that no member of such Societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the Censors appointed for that purpose, or a degree from some literary college of known good standing.

Resolved, That a more complete organization of the profession in each State is greatly needed, for the purpose of affording a more efficient basis, both for educational and scientific purposes.

Resolved, That a committee of three be appointed for the purpose of continuing the correspondence with the State Medical Societies, and of asking their earnest attention to the foregoing resolutions, in addition to those submitted for their action in 1869.

Dr. Moore, of St. Louis, offered a resolution that all medical colleges charge $100 as the fee for a course of lectures, and that a forfeiture of this rule shall exclude such college from representation in the Convention. After a protracted discussion, the resolution was voted down, on the ground that quality of education does not depend on price.

The resolutions offered were all tabled, and the Convention then adjourned until Thursday.

THIRD DAY.

The Association assembled pursuant to adjournment. In the absence of Dr. Stillé, Dr. Henry Gibbons assumed the chair.

The Committee on Publication reported that the copy of Vol. XXI was put into the hands of the printer on May 26th, 1870, but in consequence of the necessity of ascertaining definitely, by means of circulars distributed to the members of the Association, how many copies it would be necessary or safe to print, the volume was not fairly started until the 1st of July. They then went to press, and 650 copies were printed. The report is accompanied

by a table, exhibiting the number of copies of each volume, and the number disposed of since the last report.

The Treasurer's report was read by the Secretary, from which we learn that the receipts during the year were $3,802.88; disbursements, $3,098.56; the balance on hand is $704.32. The Treasurer reiterates the hope that the Association will not refer any matter to the Committee on Publication not of real value, as all the matter thus referred must be published, at times causing the volume of transactions to cost more than the sum fixed for its purchase by members.

Referred to the Committee on Publication.

The report of the Librarian, F. A. Ashford, M.D., of Washington, was received and read. He reported that the books entrusted to his custody by his predecessors had been well preserved at the Smithsonian Institute, through the kindness of Prof. Henry and its Regents. Three hundred and thirty-nine volumes, including pamphlets, monograms, etc., composed the collection at the date of the last report, and the additional matter received during the past year has been chiefly a continuation of the medical and surgical journals. The report is replete with important suggestions.

Referred to the Committee on Publication.

Association of Superintendents of Insane Asylums.—John C. Atlee, M.D., delegate to the Association of Medical Superintendents of American Institutions for the Insane, made a report, following which Dr. Storer offered the following resolution:

Resolved, That the Association of Superintendents of Institutions for the treatment of the Insane and the American Medical Association should be more closely united, and that the meetings of the two Associations should be held at about the same time and at the same place.

Adopted.

Dr. Johnson, of Missouri, presented a report from a Special Committee, suggesting a plan for the elevation of medical attainments and establishment of a National Academy of Medicine.

Referred to Committee on Education.

Dr. Yandell, of the Special Committee, to whom was referred the report of Dr. Pinkney, on Foreign Naval Medical Affairs, submitted at the session of the Association in 1870, presented the said report and moved its reference to the Committee on Education.

The motion prevailed.

Dr. E. T. Barber, of Yreka, submitted a report upon a case of fracture of the neck of the femur in a child seven years of age.

Referred to the Committee on Publication.

The Chairman of the Section on Materia Medica and Chemistry, Dr. Yandell, reported having received a valuable paper

from Dr. Gibbons, of Alameda, entitled *The Botany of the Pacific Coast.* The paper was accompanied by one hundred and eighty specimens of indigenous plants, etc., and would certainly be considered a valuable contribution to the science of medicine.

The Committee moved that the paper be referred to the Committee on Publication.

Dr. Gibbons arose and requested that the recommendation of the committee be withdrawn. The paper was not complete—not as perfect as he could make it by additional work.

On motion, a vote of thanks was passed, and the paper returned to its author for completion.

Dr. H. R. Storer, delegate from the American Medical Association to the Canadian Medical Association, submitted a verbal report in behalf of himself and associates—Dr. Sullivan, of Boston, and Dr. Gerrish, of New York. He eulogized the Canadian Association. Its members were far above the members of the American Association in point of medical education—almost all of them having graduated from European Colleges of note.

The Committee on Nominations made the following report:—For President, Dr. D. W. Yandell, of Kentucky; First Vice President, Thos. M. Logan, of California; Second Vice President, C. L. Ives, of Alabama; Third Vice President, R. M. Mitchell, of Alabama; Fourth Vice President, J. K. Bartlett, of Wisconsin; Assistant Secretary, D. Murray Chester; Librarian, F. A. Ashford, Philadelphia; Treasurer, C. Weston, Philadelphia. Next place of meeting, Philadelphia.

On motion of Dr. Davis, the report was accepted, and the officers unanimously elected.

The Committee on Ethics submitted a partial report, recommending some removals, etc., and asking time in the case of Dr. Thomas, the delegate from the Female College of Philadelphia.

The report was accepted.

Under the head of unfinished business, an amendment to the Constitution, offered at the last meeting of the Association by Dr. Hartshorne, of Philadelphia, was taken up for consideration. The proposed amendment is embodied in the following resolution:

"*Resolved*, That nothing in this Constitution shall be so construed as to prevent delegates from colleges in which women are taught and graduated in medicine, and hospitals in which medical women, graduates in medicine, attend, from being received as members of this Association."

A lively discussion ensued, in the course of which, remarks were made in favor of the resolution by Drs. Harding of Indiana, King of Pennsylvania, Gibbons of California, Atlee of Pennsylvania, and Thomas of Pennsylvania; and in opposition by Drs. Davis of Illinois, Johnson of Missouri, and McArthur of Illinois.

A vote was taken, and the motion to adopt the resolution was indefinitely postponed.

The Convention then adjourned until Friday.

FOURTH DAY.

The Association assembled at 9 A.M. President Stillé in the chair.

A number of the delegates having departed for the interior, the attendance did not equal that of previous sessions.

The minutes of preceding meetings were read and approved.

Dr. T. M. Logan, of Sacramento, submitted a series of resolutions recommending the establishment of a chair of hygiene in medical schools, and suggesting a National Health Council, based on the principle of the State Boards of Health of Massachusetts and California.

Adopted, and referred to the Committee on Publication.

Dr. Logan moved that the State of Pennsylvania be represented by the President, Dr. Stillé, on the proposed Committee.

Carried.

The nominating committee reported the names of gentlemen selected by them for the various standing committees and for the officers of sections.

The Secretary read the minutes of the Committee on Obstetrics and Medical Jurisprudence.

Referred to the Committee on Publication.

Dr. O'Donnell offered a resolution condemning criminal abortion, and urging stringent measures for its prevention.

Surgeon J. M. Brown, of the United States Navy, returned the thanks of the medical gentlemen of this department of the public service for the hearty coöperation of the Association in the recent contest between line and staff; a contest to define the position and rights of the latter, and acknowledge the dignity of the profession. The law now recognized the usefulness of the staff, and regulated the rank of officers; it did not give them all they were entitled to, but enough on which to make an honorable concession and fair compromise.

Referred to the Committee on Publication.

Dr. Montgomery, of Sacramento, offered a resolution to the effect that a Chair of Ethics should be established in all the Medical Colleges in the United States, either as an Independent Chair or in connection with some other department.

Withdrawn.

The number of licensed physicians in the United States has been ascertained by Dr. J. M. Toner, after considerable labor—according to the statement of Dr. McArthur, of Illinois. There are some 60,000 physicians; only 3,000 of them homœopaths. In

view of the importance of these statistics, it was moved that they be referred to the Committee on Publication.

The motion prevailed.

In view of the fact that a proposition for a memorial to Sir James Y. Simpson had been inaugurated by the physicians of Europe and Canada, and that the coöperation of the American Medical Association was desired, Dr. Storer moved that the Association take the necessary steps in the matter as an evidence of their appreciation of the deceased.

Carried.

The Committee on Ethics reported to refer the case of Dr. Martin, of Massachusetts, mentioned in the record of the first day's meeting, to the local Society. Dr. T. M. Wise, of Kentucky, was appointed Chairman of the Committee on Vaccination, in place of Dr. Martin, removed.

Dr. Atlee, of Philadelphia, offered the following resolution:

Resolved, That the American Medical Association acknowledges the right of its members to meet in consultation the graduates and teachers of Women's Medical Colleges, provided the code of ethics of the Association is observed.

Dr. Storer hoped that no action would be taken on the resolution. Inasmuch as the question was discussed fully yesterday, he would protest against the question coming up again. He thought that the sense of the Association was fully ascertained by the votes already taken.

Dr. Johnson, of Missouri, had a few words to say in behalf of the resolution. He hoped it would pass. This was not a question as to the admission of women into the Association; it was merely a resolution to protect the medical science. He would regret to have the women assailed by the Association; any honorable man would agree with him on that proposition. Let the women have their own associations and manage their own affairs —but when it comes to consulting, all barriers should be removed.

A sprightly discussion then ensued, which was engaged in by various members of the Convention; the proceedings assumed an uproarious character, and an incessant din took the place of legitimate debate.

The question recurred upon the original resolution.

Dr. J. M. Brown moved that the subject matter be indefinitely postponed.

Dr. Toner moved to lay the resolution upon the table.

The President called for an expression of opinion by the Association.

Misunderstanding the question before the house, many delegates arose, then became seated, and continued to give evidence of indecision, until the body of the house recalled reminiscences of the fishing excursion by the incessant bobbing in progress.

Finally a delegate called upon the President to state the question.

Dr. Atlee called for a vote upon his original proposition.

Dr. Davis desired to know if the Association would falsify its record of yesterday, and continue to wrangle until it was too late to go over the bay. The question under consideration did not amount to any more than tweedledee and tweedledum at best.

Dr. Cole—I move that we adjourn until 8 o'clock this evening, and make the consideration of this resolution the special order.

Carried.

The members of the Association, together with other invited guests, proceeded on an excursion to Oakland.

EVENING SESSION.

The Association assembled in the evening, pursuant to adjournment, President Stillé in the chair.

The resolution on the female physician question, the special order of the evening, was discussed with great freedom. Finally, after a spicy debate—

Dr. Matherly suggested that the American Medical Association had no authority for meddling in local quarrels, and therefore moved an indefinite postponement of the subject matter.

The motion prevailed.

Dr. Storer submitted the following resolution:

Resolved, That this Association views with dissatisfaction the course of gentlemen who, in setting at defiance their local and State Societies, have contemplated the establishment of a precedent that, admitted in other matters, would at once destroy the authority of this Association.

Indefinitely postponed, on motion of Dr. Gibbons.

Resolutions of thanks to the officers, the press, and railroad companies, were passed, after which the meeting adjourned *sine die.—Boston Med. and Surg. Journal.*

Glue which Withstands the Action of Moisture.

Dr. Bottger gives, in the *Polytechnical Journal*, the following receipt for glue which will withstand the effects of moisture:

"Dissolve in about eight fluid ounces of strong methylated spirit, half an ounce of sandarac and mastic; next, add half an ounce of turpentine. This solution is then added to a hot, thick solution of glue, to which isinglass has been added, and is next filtered, while hot, through cloth or a good sieve."

Correspondence.

EDITOR CHICAGO MEDICAL JOURNAL.

My address to the last graduating class in Rush Medical College, has called out an article from the pen of Dr. McElroy, which he opens as follows:

"Questions of science and fact are not often settled by after-dinner addresses. And for their utterances on such occasions, gentlemen are very properly not held to very strict account.

"But it is, nevertheless, to be regretted that those whose positions in life give to their utterances on all public occasions an *ex cathedra* importance, should ever discuss questions of science and fact as partisans of particular conclusions, in the absence of positive demonstration.

"Prof. Gunn, at the recent commencement of Rush Medical College, discussed at some length, and in no catholic and scientific spirit, it seems to me, the correlation of the physical and vital forces; but rather as a partisan that no such correlation exists in fact."

The Doctor then proceeds to give a history of his own thoughts, reasoning, and conclusions upon the subject. I read his article with care and interest, but I do not propose to reply to any portion of it, save that which I have quoted, further than to remark that it is unfortunate that it was not an after-dinner effort, so as to be entitled to that leniency, which the Doctor, himself, says should be awarded to such productions; for surely, an article which persistently denies the existence of a vital force and yet strenuously labors to correlate it with physical forces is in sore need of charity.

I am charged with an uncatholic, unscientific and partisan spirit in discussion. I regret that I have incurred the application of the first two adjectives; as to the third, if an earnest effort to expose the fallacies of the new philosophy earns me the title of partisan, I accept it with all cheerfulness; but my partisanship will not prevent my recognizing and accepting truth whenever and wherever presented. As to the charge that there was an absence of demonstration, a reference to my address will show that the several positions that I took were demonstrated by a reference to facts which are not denied by any one. Neither my positions

nor facts have been directly assaulted by Dr. McElroy, but he has given them a wide berth. Whenever they are attacked I will endeavor to defend them, unless I am convinced that they are unworthy of defense, in which event I will confess my error.

MOSES GUNN.

MATTOON, ILL., April 25, 1871.

EDITORS CHICAGO MEDICAL JOURNAL:

The following treatment for paraphymosis is, as far as I know, entirely new, but has been entirely successful in my hands, and as these cases are sometimes very annoying to the young practitioner, and as (most persons are very nervous about the use of the knife on so important an organ) they are frequently compelled to send for consultation, I send the following for their benefit.

The patient standing erect, first pour a stream of cold water (ice water, if at hand,) upon the glans penis for a minute or two steadily, then grasp the glans firmly between the thumb and index finger of the left hand, and make pretty forcible traction in a direction at right angles to the body of the patient, pressing firmly upon the glans at the same time, while with the thumb and index finger of the right hand the prepuce is slipped or drawn forward.

By thus putting the vessels on the stretch they are relieved from the pressure of the stricture, and the blood and infiltrated fluids are readily allowed to pass back beyond it, when the glans is easily pushed through the constricted prepuce into its proper position.

After traction and compression of the glans has been continued one minute, the attempt may be made to reduce it, and the first effort will generally succeed, though the grasp is not to be loosened but the pressure is to be continued and the glans forced backward, the right thumb and finger drawing the prepuce forward at the same time.

If the first attempt should fail, repeat the effort according to directions, and success is certain.

If there is a tendency to return of the stricture, instruct the

patient to pour a stream of cold water on the glans every fifteen minutes, and to hold it in the normal position until the tendency is overcome.

If the organ is much inflamed and painful to the touch, it would be well enough for the patient to take a good "slug" of whisky before commencing the operation.

After treatment, the cold effusion and arnica dressing may be used for a few days, or until the inflammation subsides.

I have succeeded in reducing several very obstinate cases in less than five minutes by this method.

TREATMENT OF ORCHITIS.

I have tried blistering over the saphenous opening with nitrate of silver, in both acute and chronic orchitis, with the most satisfactory results.

I use in connection with this, active catharsis or emeto catharsis in the beginning of the treatment, and repeat both the blistering and cathartics in three or four days or a week if the case requires it.

As a dressing to the diseased testicle, equal parts vinegar and a strong solution of chloride of sodium, ice cold, acts well.

The patient to be kept in a recumbent position for two or three days, and to wear a suspensory bandage for two or three weeks.

I have never tried the fly-blister, but presume it would act equally as well as the nitrate of silver.

DR. TOM B. DORA.

Petroleum in Dry Rot.

According to Herbst, petroleum may be applied with excellent advantage in the extirpation of the dry rot, it being only necessary to paint the surface of wood thus affected with the petroleum. A solution of carbolic acid, however, answers the same purpose and involves much less danger from fire.—*Agr. Report.*

Editorial.

Parke, Jennings & Co.

Our readers, have, of course, read the advertisement of this firm on the cover of the JOURNAL. The advertising and editorial pages of this Journal are entirely distinct. The publishers control the former, the editors the latter. But simple justice to a highly deserving and enterprising firm requires that we should say that they are doing a great work in the Northwest. From careful trial of many of their preparations, in our private practice, we are prepared to say that they have surprised us by a purity and perfection which we have rarely seen equaled.

Not as a compliment to the firm, but as a personal guarantee from personal experience, we are prepared to say, that Messrs. Parke, Jennings & Co. have succeeded in furnishing the profession medicines which are prepared with the most exquisite care, and may be depended upon for producing their typical effects. We can most cordially recommend their various preparations to our friends and the profession generally.

It will be noticed that the long-time agent of Tilden & Co., Mr. E. BENNETT, has become associated with Messrs. Parke, Jennings & Co., and his familiar face and well known thorough acquaintance with the drug business, in all its various ramifications, will inspire appropriate confidence in all those who are aware of his conscientious devotion to the business of introduction to the profession of absolutely pure and reliable medicines. We have known Mr. Bennett for many years, and firmly believe that he will never knowingly advocate or seek to introduce other than the very best of drugs and chemicals.

This notice, we repeat, is no mere puff, but given on the personal responsibility of the senior editor as eminently due a highly deserving enterprise, and several wholly reliable gentlemen.

Half-Yearly Compendium.

No. VII of this valuable American syllabus of valuable articles from the medical press of this country has come to hand. $3. per annum; single Nos. $2; Nos. 1 to 6 inclusive, $7. Address S. W. Butler, M.D., 115 S. Seventh street, Philadelphia. The publisher sends us the following card:

AN EXPLANATION.

The very late appearance of this number of the Half-Yearly Compendium has been caused by the loss of a large and important portion of copy by a printer. The fact was concealed from us for a long time, while frivolous excuses were given for the delay, and when we were apprised of the loss, considerable time was required to supply new copy.

To us this unfortunate delay has been a positive, downright loss, and the damage can scarcely be estimated by dollars and cents. To our subscribers it has been an annoyance the cause of which could not well be explained in detail, and we have sufficient confidence in them to believe that this explanation will be accepted, and that they will forgive and forget.

S. W. BUTLER.

American Journal of Obstetrics.

Wm. Baldwin & Co., 21 Park Row, New York, have assumed the publication of this now standard Journal. Issued quarterly, at $5 a year. Single copies, $1.50. It is unnecessary for us to repeat that it is the best periodical extant on the subjects to which it is devoted. The names of Dawson, Nœggerath and Jacobi, the editors, alone, are a sufficient guarantee of its practical worth and excellence. Don't be satisfied merely with Prof. ——'s superficial twaddle on the woman question, but read, mark, learn and inwardly digest what those who know, have to say and write about it.

Lying Made Easy.

The inventive genius of the American mind has been credited already with much that is ingenious, much that is useful, and much that is detrimental to humanity. Among the first two divisions, as eminently typical of both, we would classify the art of printing; among the second two, as likewise representing both, might be classed the manufacture of lucifer matches, and nitro-glycerine. Under the last head, as peculiarly representative thereof, should be ranged the art of lying, as applied to the manufacture of "medical cases" for publication. In looking over the published

lists of patents issued to Western inventors we regret to observe the absence of a notice of the issue of letters patent for this manufacture, because we hope it will be made the strict monopoly of its present holders and carefully protected from infringement, in order that the professional public may always be able to judge the quality of the article by the "trade mark," the maker's name, without being subjected to the necessity of a critical personal explanation; and also, that, as in the case of the chemical above referred to, when the inevitable explosion occurs, the inventor, and he alone, may be "hoist with his own petard."

Within a comparatively short time, several cases of deliberate fraud have been brought to the knowledge of this Journal. Two of these we have taken occasion to notice in such a manner as to induce readers to criticise them carefully, and thus detect their true character. We have only done so after careful investigation and full proof, in the hope that the hint would be sufficient.

In the future, under similar circumstances, we shall, after having gathered all the facts, publish them in detail without fear or favor. W. H.

The disagreements of doctors have become proverbial; but while admitting their frequency, we must plead in palliation the sometimes vague and doubtful data upon which they are called upon to make diagnosis.

We submit to our readers the following verbatim copy of a letter, by the aid of which we were expected to "give an opinion" of a case. If any of our professional brethren can throw any light upon the subject, we promise to make all due allowance for honest differences of opinion. W. H.

"Dr doctor my litle boy 5 years and 8 mounths he has taking sick on the 6 of december when i notice hem geting sick he compleiand of every Joint in body geting sore then a few days after he got feeeble and then sweld up every Joint in his body even to the solls of his feet then he got stife

"he a vilent beating on he hart and is all the time sweeting and when he gose to sleep he moans and sys if you hard hem you

would thenk that his hart would break he coff all the time and heef of throws of big flams he bely is swell and and hard he lips swelled up he is picking he nose and lip and fingears neals he eat nothing he compleans of a in he bely and in stomick and he sides he water after setling torns yallow and crooddles he is real scelliton this last 4 or 5 day back he complens of sumting resing up to he troatle and choaking hem he is needing very often and cannot pass nothing except when he get medcin so you are recommended to me on yesterday as i had trile of a good many eotors before you i thought try you "

[COMMUNICATED.]

KEELER, April 30, 1871.

J. ADAMS ALLEN, M.D.

Sir—Mrs. G., aged 32, died 28th; postmort. 30th, to-day; abdomen of large size distended to utmost capacity, tapped to draw off fluids, considerable gas escaped; made incision from ensiform cartilage to midway between umbilicus and pubes; on opening to the peritoneum found it white, firm and adherent to the morbid growth; dissecting the soft parts, removed about ten pounds, eight inches in width, 2½ thick in centre, and extending from side to side, saddle-shaped. We now removed about three pints fluid, yellowish brown lymph; think there were some pus globules in it; found the whole parietes lined with a substance from one to one and a half inches in thickness; in most places it could be broken up with the hand into a lumpy substance of a greenish color, looking exactly as though you had taken a handful of jelly, closed your hand upon it and broken it up. This substance was found everywhere except on the diaphragm and a strip about four inches wide along the spine extending down to the anus where the bowels were firmly pressed against the spine, there the peritoneum was smooth to the feel, and there appeared to be no deposit of this peculiar substance there; in places it was firmer from the umbilicus down to the bowels, it was firmer at the attachment to the parietes, and all the attachments to the bowels were easily broken up with the fingers, denuding the bowels of their peritoneal covering. In other respects the bowels were healthy. The liver was pressed up and to the right side, being bound by strong

ligaments, too strong to be broken up by the fingers readily; the uterus was small; no enlargement of any organ, but from long sickness and strong pressure they were diminished in size.

I send you a sample of the most organized parts, some of it being quite firm; one portion from the large tumor near the umbilicus, involving the omentum, peritoneal covering of the bowels, and parietal peritoneum; the other portion taken from the broad ligament. There was one opening into the bowel, perhaps four lines, forming a cul-de-sac in the substance one and a quarter inches in depth, but saw no fecal matter, yet it could have passed into it from the bowel. The whole growth sprung from the lining membrane of the parietes of the abdomen as grass grows from the lawn. One and a half years since, I diagnosed the case chronic peritonitis, and have ever since held to the opinion. The substance had a feel like glue, and when dried on the fingers a little, would glue them together quite strongly; the whole amount of it would probably weigh thirty-five pounds.

Our examination was hurried and bungled through for want of time. I will be much obliged to you if you will examine the specimen and let me know what you think about it. The specimen sent you is of the most fibrous cellular specimen to be procured, having cut it from the most solid part, yet by handling them they have parted with the greater part of the gelatinous substance, leaving the fibrous portions more by themselves.

That such a large amount of substance should accumulate in two years, all from the peritonea membrane, is out of the common course of events, no other organs being involved except the small glands, being, as it were, swallowed up by the growth.

Yours, truly, GEO. BARTHOLOMEW.

EDS. NOTE. The specimen accompanying the above communication when subjected to microscopic examination presented the characteristic appearances of colloid cancer; consisting of cells presenting every stage of perversion from the typical cell of normal epithelium to the nucleated fibre cell; these extremes, however, being in the minority; the principal portion consisting of large irregularly ovoidal and fusiform multinucleated and nucleolated cells, with abundant free nuclei; the whole being

evidently proliferated from the epithelial layer of the peritoneum, and extending over its whole extent. It would have added much to the pathological interest and value of this report, and the accompanying specimen, had the condition of the nervous ganglia in the abdomen been investigated, as a perversion of nutrition so extensive would, in all probability, involve as a proximate cause, some permanent modification of the ganglionic nervous system. Inflammatory disorganization of a semi-lunar ganglion being a well known cause of the corresponding lesion in the intestinal tract, it would be interesting to investigate the condition of these nervous centers as associated with a lesion so widely different in its character.

Of course, in the present state of science, our correspondent could not indulge in the faintest hope of even improving the condition of his patient, but while powerless to aid her individually, he has wisely endeavored to utilize the materials furnished by the case, for the advancement of science, and the possible benefit to future sufferers. We trust his good example will be followed by others. If gentlemen would report their failures, and furnish by means of autopsies the causes thereof, it might happen that one lost case thus given to the world would possess much greater value to science than many quasi successes which might be, after all, but cases of *post hoc non propter hoc.*

W. H.

Placenta Prævia.

Dr. Storer considered it of little advantage to temporize in these cases. Fortunately but few practitioners had many opportunities either of doing so or of testing in their own practice the different methods of treatment that had been suggested. He himself did not consider the old plan of forcibly delivering through the placenta nearly so good a one as that of Simpson, by detaching the placenta throughout its surface as rapidly as possible. Before relinquishing obstetric practice, he had been enabled to do this in more than one instance, and always with the happiest results.—*Gyn. Jour.*

Loot.

Chloralum.

The new antiseptic commended by Professor Gamgee, and known as chloralum bids fair to be of much value in its applications in domestic economy and in medicine. The advantages claimed are the possession of antiseptic qualities equal to those of any other substance; while used in moderation it is entirely free from smell, from unpleasant fumes, has no disagreeable taste, and is without any irritant or poisoning qualities. According to Professor Gamgee, by its use as an antiseptic, rawhide, meat, and other animal substances, immersed in a solution of 1.030 to 1.040, specific gravity, will be preserved perfectly for an indefinite period of time, and what is still more to the purpose, will not be attacked by insects after being removed from the solution. Fish, slightly tainted, when immersed recovers its freshness of appearance, and becomes firm and palatable. In some instances fresh fish, such as salmon, when caught were dipped in the solution, and after a passage of several days, without ice, to London, in the summer season, were found to be entirely eatable. This substance is suggested as an aid in drying cod on the coast of Newfoundland and elsewhere, as thereby an immense mass of fish that are now rejected could be readily preserved. The offal of cod and mackerel fisheries which is now thrown overboard, could be preserved by this substance as long as might be required, and then carried on shore to be converted into one or other of the various forms of fish guano.

For disinfecting purposes a solution varying from 1.006 to 1.010 is sufficiently strong to answer the desired object, stronger solutions being usually unnecessary and imparting a disagreeable smell. The solid matter of sewage is said to be precipitated more rapidly by this substance than by the use of the persalt of iron, and the odor disappears entirely. The use of chloralum in any epidemic, the cattle plague or other contagious disease, including the epizoötics, is indicated by the author of the communication. Finally, it is recommended for the treatment of wounds, erysipelas, gangrene, and various contagious and inflammatory diseases. It may also be used for the purpose of immersing the linen of patients before removing it from the sick chamber. For the purification of water-closets it is said to have no equal in any of the preparations hitherto recommended, and has also the advantage over nearly all the rest of being free from any offensive odor —*Agr. Report.*

Pulsation of the Ureters.

Dr. Asa Horr, of Dubuque, Iowa, writes to us of an interesting case, and asks whether it be unique or not. Will any of our readers answer the Doctor through our columns? He says that he has under treatment a case of vesico-vaginal fistula, where the cervix and os are hidden, and the orifice so distended by fibrous bands, that he can observe the discharge of the urine into the bladder, and states that it comes from the ureters in pulsations, with regular intervals of from fifteen to sixteen seconds, the pelves of the kidneys apparently contracting after the manner of the heart's action. To us the case is unique, and we shall be pleased to learn of a similar one on record.—*N. W. Journal.*

Death from Chloral Hydrate.

Dr. George G. Needham reports in the *Journal of Psychological Medicine* a case of fatal cerebral congestion following the administration of hydrate of chloral to a married woman, aged fifty, of hysterical diathesis, who had suffered for some two years with symptoms of mental derangement, consisting of distressing "nervousness," fear of impending death, hesitation, suspiciousness, etc. Ophthalmoscopic examination showed an enlarged and tortuous condition of the retinal vessels. In October, 1870, the loss of a relative threw her into a state of much excitement, for which she took, on October 19th, 115 grains of bromide of potassium. On the 21st, chloral hydrate was prescribed in thirty-grain doses, of which she took six, as follows: On the 21st, at 5.30 p.m. and 11 p.m.; on the 22d, at 10 a.m. and 3 p.m.; on the 23, at 1 a.m, 8.10 a.m., and 1.30 p.m. On the afternoon of the 22d she was sleeping quietly, with a somewhat rapid pulse, and was found in the same condition at two visits (morning and evening) on the 23d. On the morning of the 24th, her continued sleep created alarm, and ineffectual attempts were made to rouse her, which were maintained during the day and night. Sulphate of strychnia was thrice injected, in doses of one-thirtieth of a grain at intervals of four hours during the night. Coma progressed to a fatal termination on the afternoon of the 25th. The autopsy revealed extreme hyperæmia of the pia mater and brain substance. A year before, the patient had taken nearly the same quantity of chloral within the same period of time without ill effects. The writer suggests that the previous administration of a long course of bromide of potassium may increase the danger of full doses of chloral.—*Med. Gazette.*

Quinine in the Diseases of Childhood.

C. Bing, M.D., Prof. of Pharmacology in the University of Bonn, Germany, (*Am. Jour. of Obs.*) regards quinine as an important remedy in those diseases of childhood dependent on septic or zymotic conditions, like measles, scarlatina, and diphtheria. In scarlet fever, quinine should be given from the *very commencement* in sufficiently large doses, the progress of the disease carefully watched by the aid of the thermometer, and the doses increased in quantity if the fever grows threatening.

Of the acute exanthemata of infants, he would mention one particularly as being within the sphere of the influence of quinia, namely, *erysipelas neonatorum.* As a general rule, an internal dyscrasia, or an external putrid ulceration of the navel, is assumed as the cause of this fatal disease.

The action of quinine in this disease is attributed to the overcoming of the alteration of the blood, to the diminution of the high temperature, and to the direct removal of the histological causes producing the erysipelas.

In pertussis, quinine has answered his expectations. Three conditions are absolutely necessary if we desire any good results from it in whooping cough. It should be given in solution; the dose should not be too small, and should not be administered in a vehicle that will prevent it from coming in contact with the mucous membrane in its passage through the pharynx. The preparation should only be given when dissolved in muriatic acid, unless we are desirous of employing the alkaloid combined with that salt.—*Med. Record.*

Sickness and Diarrhœa of Children.

In this troublesome and frequent affection of children, a drop of ipecacuanha wine, administered every hour, is most successful. Under its influence the sickness almost immediately subsides, and the diarrhœa abates, although the latter may continue one or two days longer, and in a few cases, although very much controlled, may require another remedy to remove it. Its use is indicated when the motions are *frequent* and *slimy*, and also when they are of a *grass-green color;* and it is highly efficacious in this form of dysentery, when accompanied by vomiting; but the presence of sickness may be accepted as a special indication of its usefulness, and rarely will it be found to fail where sickness and slimy diarrhœa are present. The notes of numerous cases have been preserved, but it is unnecessary to give a detailed account of them, as they all present the symptoms above mentioned.—*C. C. Fuller, in "Lancet,"* Dec. 4, 1869.—*Nashville Jour. of Med. and Surg.*

Varying Effects of Poisons on Different Animals.

It is a well-known fact that what is poisonous to one animal may be taken by another with entire impunity. In illustration of this proposition, we are informed that strychnine, so fatal to most animals, may be eaten by certain species of monkeys with perfect safety. In the case of an East India monkey, known as the Lungoor, (*Presbytis entellus*), one grain was first concealed in a piece of cucumber, which was eaten by the animal with no apparent effect. Three grains were afterward given, and with the same result. To test the strychnine used, three grains were administered to a dog, which proved almost immediately fatal. Another Indian monkey, known as the pouch cheek monkey, has been found to be more susceptible than the Lungoor, but not so much so as the dog.

It is also stated that pigeons can take opium in large quantities with no injurious consequence; goats, tobacco; and rabbits, belladonna, stramonium, and hyoscyamus.—*Agr. Report.*

Tetanus.

Dr. David W. Yandell, of Louisville, Ky., (in the Am. Practitioner), lays down the following conclusions in regard to tetanus:

1. The traumatic tetanus occurs in males in the proportion of four to one, and tends to recovery oftenest in females.
2. That tetanus is most fatal in persons under ten years of age; that it is least fatal between ten and twenty years.
3. That traumatic tetanus usually supervenes between four and nine days after the injury, and these cases represent the largest mortality.
4. Recoveries from traumatic tetanus have been usually in cases in which the disease occurs subsequent to nine days after the injury.
5. When the symptoms last fourteen days, recovery is the rule, and death the exception, apparently independent of the treatment.
6. Of all the forms of tetanus, that appearing in the puerperal state is the most fatal.
7. That chloroform, up to this, has yielded the largest percentage of cures in acute tetanus.
8. The true test of a remedy for tetanus is its influence on the history of the disease. (1) Does it cure cases in which the disease has set in previous to the ninth day? (2) Does it fail in cases whose duration exceeds fourteen days?
9. That no agent, tried by these tests, has yet established its claim as a true remedy for tetanus.

Tin Foil as a Preservative Wrapping.

Experiments conducted by E. Baudrimont with reference to the determination of the value of tin foil as a preservative wrapping for substances likely to deteriorate upon exposure to the air, have resulted in establishing its great usefulness. Boxes lined with it preserve botanical substances from deterioration a much longer time than boxes not so lined. Quick-lime wrapped in tin foil is prevented from slacking. Deliquescent salts are also kept from dissolving through the absorption of moisture from the air, when wrapped in this material. A large number of substances liable to change on exposure to the air were also protected in the same way. Some doubt having been expressed as to the impermeability of ordinary foil to air and moisture, these experiments will settle this question finally.—*Merc. Journal.*

Delirium Tremens.

Dr. Murchison, in a clinical lecture at the Middlesex Hospital, has laid down some rules concerning the treatment of delirium tremens, which are of much practical value. The administration of alcohol he condemns as "only adding fuel to the fire," and maintaining congestion of the stomach, liver and kidneys; and he has long been in the practice of giving none, except in cases where there has been evidence of fatty heart, or an intermitting pulse, or some complication calling for its use. As much nutritious food as the patient can digest should of course be given. With regard to hypnotic drugs, he says: "Whenever the urine contains albumen as the result of recent congestion or old disease of the kidneys, opium is almost certain to fail, or even prove injurious; and, accordingly, it is a good rule never to give opium until an opportunity has been offered to test the urine. But when the urine has been ascertained to be free from albumen, opium may be given without fear, and usually with the best results." A full dose at first, followed by smaller ones every three hours until sleep ensues, is recommended. Digitalis, in doses of from fifteen to thirty minims of the tincture every four hours, is "particularly indicated in cases where the urine is scanty or contains albumen, or where the patient is very excited." Bromide of potassium he had not found of much service in securing sleep, though it may moderate active delirium or mental excitement. Hydrate of chloral is "particularly applicable in those cases where opium is contra-indicated. It does not, like opium, interfere with elimination by the kidneys; and, indeed, there are grounds for believing that the existing impurities of the blood favor the action of the chloral by assisting in the liberation of chloroform. One caution is necessary with regard to it. Not only in delirium tremens, but in other diseases, the first

action of chloral (like that of an insufficient dose of chloroform) is exciting rather than sedative. You must not on that account infer that it is acting injuriously, for a second dose will often produce the desired sleep. The best way to give it is in doses of half a drachm every two or three hours until sleep results."—*Med. Gazette.—Med. Archives.*

Prepared Meat-Extracts in Java.

It has frequently been remarked that the best inventions of the western nations have, in nearly every instance, been anticipated by processes long since devised and in use by the Orientals, especially by the natives of China and Japan; and we are assured that the subject of prepared meat-extracts takes its place in this category. We are informed by a recent communication of Dr. Pott, that the inhabitants of Java have for many years been in the habit of preparing flesh extracts of various kinds, and especially of beef, fish, and crabs, and that in this form they enter very largely into the internal commerce of the country. The preparation is known by the general name of *petis*, while the particular substance, whether the flesh of one of three kinds of oxen, of fish, or of crabs, is indicated by a special affix.

The preparation of the petis appears to be a very simple one, consisting merely in boiling the raw material and chopping it very fine, and then putting it in a press and forcing out all the juices. This juice is then boiled down at a moderate temperature to the consistency of syrup, and kept for use. As a general rule, the preparation is made of such pieces of meat of all the animals used as when brought to market are not sold before its close, a precaution rendered necessary by the heat of the country, and the impossibility of obtaining ice, by means of which to carry the food over until the next day. The substance from which the petis is expressed is also dried and introduced into commerce, but is generally used immediately, while the petis is distributed widely throughout the Indian Archipelago, and can be kept a long time. These preparations have an extremely saline taste, due almost entirely, however, to the concentration of the organic salts originally contained in the expressed juice. The smell is said to be quite agreeable, and the taste very appetizing.—*Agr. Report.*

Pepsin and its Medical Preparations.

Dr. Fred. Hoffmann, of New York, relates, in a recent publication in the Proceedings of the American Pharmaceutical Association, a series of comparative examinations of the French as well as of the American commercial dry pepsins, by which he has satisfied himself of the well-founded disfavor into which this remedial agent

has fallen with the practitioner. The author refers to similar results recently published by Dr. Hager, of Berlin (*Pharmac. Central Halle,* 1870), wherein Dr. Hager states that this remedy had been in discredit with him for years, but that his attention had been drawn to pepsin anew by the remarkable efficacy of Schering's recently introduced "Essence of Pepsin," prepared from dried ostrich's stomachs, at the advice of Dr. Oscar Liebreich. Dr. Hager examined, and gives in his paper the formulas of, the French liquid pepsin preparations. He found none of them equal in efficacy to Schering's preparation, which dissolves, at the temperature of the human body, one-tenth of its weight of humid blood-fibrin within one hour.

Dr. Hoffmann concludes his paper, "According to long experience and to the numerous and recent statements of eminent practitioners and observers, there remains no doubt that pepsin, when properly obtained and prepared, is of great therapeutical value in cases where the secretion of the gastric juice is either deficient in quantity or defective in quality, and that the discredit attributed to it is due to the inferior quality of the pepsin preparation, and to the defective mode of obtaining and preparing the same. It ought to be the aim, and lies in the self-interest of the pharmaceutist, henceforth to remedy the unreliability of this important preparation, and so furnish the practitioner and the patient with a pepsin in the most judicious form of preparation.

"In order to secure this desideratum I think it necessary to discard all amylaceous and similar so-called dry pepsin. Being a remedial agent of no chemical stability, and perhaps in a state of continuous self-decomposition when in contact with organic substances and with the atmosphere, our dry amylaceous pepsins are subjected to constant and incidental degradation. Sooner or later they will lose all medical power, and become totally inert. I believe that the best mode of obtaining and preserving the pepsic principle of the gastric juice of the stomach is its incorporation into inactive liquid menstrua without any chemical treatment, as is the case in Boudault's process, and in that of the French code. The simplest possible menstruum, perhaps, may be a mixture of glycerin and water, with or without an addition of some per centage of alcohol flavored with any artificial wine or fruit essence. The quantity of alcohol, however, ought not to exceed ten per cent., since a greater admixture probably neutralizes the therapeutic action of pepsin.

"The best mode of obtaining the gastric juice from the cleansed, fresh stomachs of a calf, pig, sheep, or of the turkey, is to squeeze them repeatedly between wooden rollers. After all the juice has been squeezed and collected with silver spoons, the membranes are each time, before again passing through the rollers, brushed with a mixture of equal parts of water and glycerin. By this

operation, the membranes are thoroughly exhausted. According to our present experience, it may be best to add to the obtained juice a mixture consisting of twenty-five weight parts of glycerin, two parts of hydrochloric acid, eight parts of alcohol, and sixty-five parts of water, deprived of atmospheric admixture by previous boiling. But in order to make the preparation more agreeable to the taste I use, instead of the water, good Rhine wine, which by its simplicity and greater reliability as to its genuineness is greatly preferable to our commercial Madeira, sherry, and port wines. The mixture is then left in a very cool place (in summer in the ice-box), to deposit, in bottles entirely filled and well corked. When clear it is decanted, the rest filtered, and is then kept in a cool place in small bottles completely filled and tightly closed. The addition of hydrochloric acid may not be necessary, but it seems to be subservient to the clarification of the mixture.

"As to the strength of this pepsin wine, there is no standard established yet. I prepare it of the strength, suggested by Dr. Hager, to dissolve twelve and a half parts of its own weight of humid blood-fibrin."—*Medical Record.*

CHICAGO, April 1, 1871.

EDITORS CHICAGO MEDICAL JOURNAL:

I take pleasure in informing you that at the annual meeting of the Alumni Association of the Chicago Medical College, held March 14, 1871, the prize of $100 was awarded to DR. LYMAN WARE, class of 1866, for an essay entitled "Antagonisms between Opium and Belladonna." This essay, together with the President's Address, will be sent to all Alumni, who become members of the Association. You are respectfully urged to become a member, by sending your name and address, with one dollar, to the Secretary.

The Association has again voted $100 for a prize to that member of the Association who will present the best essay on some medical or surgical topic. Of the above sum, DR. N. S. DAVIS will donate $50. DR. LYMAN WARE donates $50 for a prize to that member of the Association who will present the second best essay on some medical or sugical topic. The competing essays must be placed in the hands of the Secretary of the Association, before the 15th February, 1872.

Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, containing the name and address of the author.

The essays will be examined by a committee, consisting of Drs. N. S. DAVIS, E. ANDREWS, H. A JOHNSON, and WALTER HAY; and the envel-

ope accompanying the successful essay will be opened, and the name of the author announced, at the next annual meeting of the Association, in 1872.

Please forward your annual dues by return mail.

As I am unable to find the address of the following Alumni, you will confer a great favor by giving me information concerning them:

Charles Ashworth, class 1869; H. C. Barrett, class 1865; J. W. Barlow, class 1867; C. C. Bendeke, class 1869; R. W. Bower, class 1870; O. F. Bartlett, class 1862; J. Conant, class 1860; T. Cochrane, class 1865; G. M. Conville, class 1868; W. H. Crothers, class 1869; Wm. C. Chafee, class 1869; J. H. Curtiss, class 1869; E. Deane, class 1863; Wm. Deal, class 1869; S. H. Drake, class 1869; Lucius Dillie, class 1870; W. C. Griswold, class 1864; E. T. Greenleaf, class 1864; J. S. Gibson, class 1869; J. Hoke, class 1869; G. B. Hoblet, class 1869; J. H. Hudson, class 1870; C. D. H. Jones class 1860; C. T. Johnson, class 1866; J. H. Leitch, class 1862; J. E. Link, class 1865; J. R. Lane, class 1867; E. Y. Lawrence, class 1867; J. N. McLane, class 1863; S. McGiffin, class 1865; H. C. McCoy, class 1866; J. D. Morris, class 1863; H. G. Morgan, class 1868; A. S. Martin, class 1864; W. E. Morris, class 1866; J. Nicolai, class 1861; W. D. Plummer, class 1864; A. D. Rouse, class 1862; F. A. Reckard, class 1864; R. R. Resseguie, class 1867; David Robertson, class 1867; Meinard Risch, class 1869; Nelson Rinedollar, class 1869; S. W. Ransom, class 1870; W. D. Saxton, class 1865; Joseph Sterret, class 1869; W. M. Stratton, class 1870; W. H. York, class 1864; J. B. Woodson, class 1868.

S. A. McWilliams, M. D.,
Permanent Secretary and Treasurer, No. 166 State Street

Brainard Medical Society.

The Society met in the Court House in Winamac, Ind., April 6, 1871, Dr. Cleland in the chair.

Drs. T. M. Goldsberry and A. S. Campbell of North Judson, and H. E. Pattison of Star City, were admitted to membership. Drs. Hoag, Cleland, Campbell and Thomas reported interesting cases in practice. The fifth annual election of officers was then had, which resulted as follows:

President—W. T. Cleland, Kewana.
Secretary—I. B. Washburn, Star City.
Treasurer—Wm. Kelsey, Monterey.
Censors—F. B. Thomas, J. B. Hoag, and A. S. Campbell.
Delegates to State Society—Drs. Washburn, Kelsey, Kittinger, Thomas, Glazebrook, and Hoag.

The Society adjourned to meet in Star City, Ind., July 6, 1871.

I. B. Washburn, *Sec.*

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—JULY, 1871.—No. 7.

Original Communications.

ARTICLE I.—*On the Use of Carbolic Acid in Diphtheritic Affections.* By F. C. HOTZ, M.D., Chicago.

After the carbolic acid had, recently, been used so frequently and successfully in Surgery to prevent the septic infection, the natural consequence was to try its efficiency in diphtheria, whose most dangerous feature lies in the septic infection. So it was then tried here and there, but abandoned again. I wish, therefore, to draw the attention of the profession anew to this remedy, by reporting a number of cases of diphtheria which, during the last winter, I treated with the most gratifying success with carbolic acid. I used for this topical medication the acid in the following form:

℞	Acid Carbolic, cryst. - - - - - -	}	āā ʒj;
	Alcohol, - - - - - - - - -		
	Aquæ, - - - - - - - - - -		ʒ v;
	Tinct. Iodin., - - - - - - - -		ʒ ss. M.

This makes a perfectly clear, transparent mixture, of a brown-red color, which soon, however, passes over into a pale yellow. The combination with alcohol and iodine effectually moderates

the very unpleasant smell of the carbolic acid, and increases its antiseptic effect. This solution was applied to the diphtheritic exudation three or four times in twenty-four hours, by means of a camel's hair brush. In adults and older children, it was, in a diluted form (15 to 30 drops to a cup of water), used also as a frequent gargle, and for injections into the nostrils if the nose was implicated.

I was induced to try this treatment by the report of a German physician,* who saw even the most unpromising cases recover under this medication in a very short time, and as my observations could in every point confirm this experience, I thought it to be of sufficient interest and importance to communicate an account of my cases.

CASE I.

Was called, Dec. 15th of last year, to see a boy, aged 8 years, who two days previously was attacked with fever, severe pain in the throat, and swelling of the cervical glands. Found the tonsils very large, and covered with patches of white exudation. A saline purgative and a gargle of alum was given. But on the following day, Dec. 16th, the patient was in a half soporous state, pulse 140, skin hot and dry; breath fœtid, and a thin offensive fluid was discharged from the nostrils. The tonsils were so large that they nearly closed the isthmus of the fauces. The soft palate and the tonsils were covered with a thick white exudation firmly adherent to the tissue. Mucous membrane of the pharynx deep red, and covered with viscid mucus.

The mixture was applied four times, and diluted with water (20 drops to a teacup) it was frequently used as a gargle and injection into the nostrils. An infusion of digitalis was also given.

Dec. 17th.—The patient conscious; a. m. pulse 115; p. m. 100;

* Dr. Rothe, in *Berliner Klinische Wochenschrift*, June 13, 1870. He reports fifteen cases: in two (children aged 3 and 7 years) the diphtheria was complicated with scarlatina; in one (child of 3 years) with the measles; in five children, from 1½ to 7 years old, the disease had extended to the larynx; in six cases the doctor arrested the disease right in the beginning. All cases did well. Digitalis was given in the acme of the fever; liquor ferri muriatis in the reconvalescence.

the discharge from the nose thicker and inoffensive; the exudation thinner and not extended any further. Digitalis discontinued.

Dec. 18th.—Pulse 96; very little discharge from the nose; exudation only on the uvula; cervical glands diminished in size. Mixture twice more applied to the uvula, and then discontinued. Gargle continued for two days longer, when the patient was discharged cured.

CASE II.

Saw, Dec. 24th, the servant girl in the same family, who was taken sick the previous night with chill and fever, headache and pain in the throat. Pulse 96; tonsils very tender to the touch, enlarged, and covered with patches of white exudation; mucous membrane of soft palate and pharynx deep red, and covered with thick viscid mucus.

The mixture was applied to the tonsils twice daily, and the gargle used every hour. The patient recovered in two days.

CASE III.

Adult in the same house was, Dec. 25th, affected in the same manner as Case II, and under the same treatment he recovered in two days.

CASE IV.

A boy, 5 years old, was attacked with scarlatina, and nothing abnormal occurred during the eruptive stage (Dec. 18th to 22nd), but on the 23rd of Dec. the fever increased in intensity; the cervical glands were swollen; a thin mucus streaked with blood was discharged from the nose, and the boy complained of pain in the throat.

The diluted mixture only was used as injections into the nostrils every two hours.

Dec. 24th—a. m. pulse 125, p. m. 140, the patient unconscious; swallowing impeded, lips and tongue dry; tonsils greatly enlarged and thickly covered with diphtheritic exudation. The same exudation extended over the soft palate and pharynx. Mixture applied three times; injections continued.

Dec. 25th—Pulse 120; the boy decidedly better; conscious, can swallow, though with difficulty; tongue moist; pharynx already freed from exudation; discharge from the nose diminished in quantity and of thicker consistence. Enlargement of the cervical glands diminished.

Dec. 27th—Pulse 96; the patient has good appetite, swallows without difficulty or pain; discharge from the nose has ceased; mucous lining of pharynx and tonsils natural. The patient discharged cured.

CASE V.

An adult, aged 32 years, was, on 3rd of April, attacked with severe fever and stinging pain in the throat; tonsils very tender, enlarged and covered with patches of white, firm exudation (as in Case II,) which also extended over the whole uvula. With two applications of the mixture, and by frequent gargle with the diluted solution, the patient recovered in three days.

CASE VI.

Was called, April 9th, to see a child, 15 months old, who had contracted the measles from a sister. Nothing unusual occurred until the 6th of April (which was the second day of the eruption), when the right eyelids rapidly became swollen, and on the following day the left lids also commenced to be œdematous. On these three days previous to my first visit, the child was very feverish, slept much, and refused to swallow any food. Found, April 9th, the child unconscious, and with high fever. The respiration was difficult, and the cervical glands were much swollen. There was a thin offensive discharge from the nose, whose mucous lining appeared infiltrated with a firm fibrinous exudation. The upper lip swollen and hard, its skin red and glistening, and to a great extent destroyed by diphtheritic ulceration. The tonsils enlarged and covered with thick exudations (partially brown—red from blood), as were also the soft palate and the pharynx. The right upper eyelid was swollen to the size of an egg, so hard and stiff that it was impossible to raise it sufficiently to see the condition of the cornea. As far as the conjunctiva could be seen it was thick and pale from a gelatino-fibrinous exudation. The edge of the right upper lid was partially destroyed by ulceration. The left eyelids were less swollen and hard than the right, their conjunctiva deep red, but smooth, and covered with patches of exudation; the middle of the free edge of the left upper lid was also destroyed by diphtheritic ulceration.

Mixture applied to the conjunctiva as well as to the fauces three times daily, and, diluted (30 drops to a tumbler of water), it was used as a mouth wash and injection into the nostril every hour.

April 10th—Left lids very little swollen; conjunctiva free from exudation. Swelling and stiffness of the right lids also diminished; the diphtheritic exudation thinner, so that the conjunctiva has a pale rosy tint; respiration easier. Treatment continued.

April 12th—No discharge from the nose, its mucous membrane natural; the ulcer of the upper lip healing; the exudation in the fauces very thin; left eye natural; conjunctiva of the right lids (which were soft and of natural size) free from exudation, but red and succulent. The orbicular conjunctiva still showed a thin exudation, and the cornea was opaque, necrotic. Mixture twice.

April 14th—Mouth and fauces clear; also right eye freed from the rest of diphtheritic exudation; but the cornea was totally destroyed. Treatment discontinued.

I saw the child on the 19th again; it had recovered pretty fairly, and all traces of that severe disease had disappeared except the destruction of the right eye, some catarrhal ophthalmia, and great weakness. During the whole sickness good nourishment was all the child took internally.

The following two cases have been under the care of Dr. Mannheimer, to whom I am indebted for their history.

CASE VII.

Was, October 28th, called to see a boy, aged 4 years, who, two days previously, was taken sick with high fever, and severe pain in the throat. Found the cervical glands swollen, and a thin but not offensive discharge from the nose; and diphtheritic exudation covering the lips, tonsils, soft palate and pharynx. The mixture was applied three times daily, and the gargle used frequently. After two days the patient was so much better, that one topical application only was required daily; and after four days more the boy was discharged cured.

CASE VIII.

Saw, in November, a child 2 years old, who was suffering from the same diphtheritic affection of the tonsils, soft palate and pharynx, as Case VII; but complicated by an extension of the exudation to the larynx as a complete aphony, and very difficult respiration indicated. The same treatment as in the previous case was adopted, with the addition that, with a suitable brush, the mixture was applied to the larynx also until, after two days, the voice returned and the respiration was easy. Discharged as cured after ten days.

These cases are not very numerous, but they suffice, in my opinion, to show that the local treatment which was applied had an evident influence on the diphtheritic inflammation. In all cases, the mixture at once arrested the extension of the exudation, and where it was used in the stage of the development, the disease was actually cut short. Although the Cases II, III and V, in themselves alone, are not conclusive evidence for this assertion, because one may doubt their diphtheritic nature, yet they are of great value in connection with Case I. Occurring at about the same time, some in the same house, and all beginning with the same local and general symptoms, they showed this remarkable difference, that in Case I the disease, when let alone, rapidly developed all signs of a severe diphtheritic inflammation, while it passed, as a perfectly harmless affection, in Cases II, III and V, in which the mixture was used at once. And then, I refer to Case VI as the most striking instance; there the diphtheria was fully developed, not only in the throat but also in the right eye, and, the contagious matter being transmitted to the other eye, this was threatened with incipient diphtheritic ophthalmia. But within two days this eye was out of danger, as the inflammation was arrested in its earliest stage, owing to the timely use and the effectual action of the above mixture.

Nor is the efficiency of this remedy less strikingly demonstrated by those severe Cases (Nos. IV, VI and VIII) where the diphtheria was far advanced before the above topical treatment was resorted to. In those cases even, I succeeded always in checking the local inflammation instantly, and soon after the constitutional symptoms subsided also. We further noticed that under the use of the mixture the exuded matter rapidly diminished in quantity and disappeared, but putrefaction of the exudation, and gangrenous destruction of the mucous membrane never occurred after the remedy had been applied.

I lay great stress upon these observations, as they clearly show that the constitutional disturbance is closely connected with, and entirely dependent on, the local inflammatory process. Just as the general symptoms accompanying an acute inflammation of a joint will assume a very dangerous character when the exudation in the joint becomes purulent or putrid, in the same manner the diphtheria will seriously affect the constitution when the exuda-

tion undergoes putrid decomposition. And the beneficial effect of the above treatment consists, in my opinion, in the prevention of the occurrence of such putrefaction, and in thereby protecting the system from putrid infection, and the mucous membranes from extensive ulceration.

I am well aware that such exclusive topical treatment is strongly objected to by those who consider diphtheria to be a constitutional disease. Though a wide-spread opinion, its correctness has not yet been fully evinced by pathological facts; while, on the other hand, there are many observations which do not speak in its favor. I will mention but a few facts. When one eye is affected with diphtheritic conjunctivitis, we can protect the other eye against contagion, by a bandage applied with the utmost care and accuracy, while internal remedies are of no avail. Nor can such remedies prevent the exudations spreading to the larynx, while we can keep them confined to the pharynx by local applications. And in all records on diphtheria experience has taught that local medication yielded altogether better results than the mere internal administration of medicines. By these and other facts we are well justified in searching for a reliable local remedy in the treatment of diphtheria, though such treatment may not be in harmony with our theory. For I believe the aim of our professional labor to be to investigate into the nature of diseases, but not to find out proofs for an assumed theory.

ARTICLE II.—*The Microscopic Appearances of Cancer Cells.* By I. N. DANFORTH, M.D., Chicago.

Twenty years ago, the opinion was pretty generally entertained in the medical world, that the microscope, if used by skillful hands, was entirely competent to decide as to the malignancy or benignancy of any and all morbid growths. In the twenty-fifth volume of the "American Journal of the Medical Sciences," may be found a lengthy and elaborate article, evidently the product of much and careful study, in which the author, Dr. F. Donaldson, of Baltimore, sets forth the distinctive characteristics of cancer cells, and adds many figures intended to illustrate these peculi-

arities. Dr. Donaldson's attempts at classifying cancer cells should have convinced him, it would seem, that these cells at least, construe very liberally their obligations to conform to the requirements of a uniform law of type. He makes six varieties:

"1. The polygonal, or more or less spherical and ovoid cell.

"2. The caudated cell.

"3. The fusiform cell.

"4. The concentric cell.

"5. The compound, or mother cell.

"6. Agglomerated nuclei, connected by granular homogenous substance."

This classification must certainly have been conceived in a truly liberal spirit. It is broad-gauged enough to cover every cell in every part and organ of the body, whether in health or in disease; and not only that, but also to include every cell in every plant and animal that flourishes upon or walks over the earth, and of every inhabitant of the boundless ocean. Let any one set himself squarely down to the work of imagining what the microscopic appearance of "the polygonal, or more or less spherical and ovoid cell" must be, and he will find himself engaged in a task which is limited only by his powers of imagination. Indeed I can scarcely conceive of an exercise better calculated to develop that faculty of the mind. The fact is, Dr. Donaldson's observations, instead of proving that anything like uniformity exists in the structure and appearance of cancer cells, very clearly proved that the distinguishing characteristic of these bodies is a most perverse and constant want of uniformity, and in doing this, he made a very important and welcome addition to our knowledge of the minute structure of cancerous growths. The very active researches which have been going on in every department of pathological histology during the last few years, have but served to buttress and substantiate the statement that *there is no typical cancer cell*, as there is a typical pus cell and a typical epithelial cell. The very nature of cancer; its comparatively rapid growth; its lawless invasion and destruction of all adjacent tissues; its short life and imperfect organization, and, moreover, its rapid decay, are, each and all, sufficient reasons for expecting many and varying types of cell growth. These several peculiarities are worth glancing at a little more closely.

First: Cancer is a structure of essentially feeble organizing power; in other words, it is endowed with a low grade of vital power. In its mode of growth its behavior is strikingly like the so-called "fungus" or "proud flesh," which is so apt to sprout up in wounds which do not heal kindly. Indeed, it is not perhaps far out of the way to describe it as a sort of fungus growth implanted within or engrafted upon normal tissue. Hence, like all productions of like nature, its growth is rapid as compared with healthy structures; and this very rapidity necessitates incompleteness, or a faulty and unfinished growth. Hence, also, we should expect to find cells in all stages of growth, as well as a multiplicity of cell forms. We find caudate cells, pushing out their processes where they meet with the least resistance—in other words, growing wherever they find room to grow, without, in their haste, stopping to consider the results; we find half-grown cells, looking like overgrown nuclei; large, awkward, angular cells, frequently with several nuclei, (the so-called "mother" or "brood" cells) which seem only intent upon leaving a numerous progeny behind them; cells with one or more "buds" or processes protruding from their walls, which is also a form of cell multiplication, and, finally, cells which combine two or more of these various phases of growth. Therefore, one peculiarity of cancer cells depends upon its rapidity of, as well as faulty growth.

Secondly: Cancer is notoriously lawless and unsparing in its progress. Unlike other morbid growths, it invades all structures which occupy its pathway, infiltrating glands, insinuating its growing germinal matter between the fibres of muscle, or actually trespassing upon the substance of the individual fibre itself; plowing its way into and through osseous tissue; perforating membranes; tapping blood vessels; surrounding and compressing nerves; and, ultimately, destroying and disintegrating whatever it touches. But in accomplishing this work of destruction, cancer liberates very many formed and forming cells which do not properly belong to it. That is, the *normal* cells of *healthy* structure, whether it be glandular or otherwise, become admixed with the *abnormal* cells of diseased (cancerous) structure, just so fast as the latter invades and disintegrates the former. A specimen of epithelial cancer of the lip before me, shows a multitude of epithelial cells which cannot be distinguished from those of the healthy

structure, and these are most abundant at or near the junction of the healthy with the diseased tissue. A specimen of encephaloid of the liver contains very many cells precisely like, and undoubtedly identical with, the secreting cells of this organ, and in both instances, the cells of health and disease lie in the most intimate relations. Here, then, we have another reason for the great variety in regard of form and size, which we so constantly meet with in the study of cancer cells.

Thirdly: The term of life of any given cancer cell is necessarily a brief one; its organization necessarily imperfect, or of low type, and its decay and disorganization rapid. Hence, in almost every specimen of cancer cells, we may expect to find, and, indeed *do* find, many cells in different stages of decay, and, consequently, undergoing various morphological changes. That part of the cell which is first formed is likewise first to die, and the external part, or periphery, (the so-called "formed material") is now almost universally regarded as the oldest portion of the cell; hence we find cells with angular or roughened boundaries, because the external portion is slowly or rapidly disintegrating: but sometimes large masses of the "formed material" will disappear at once, and this gives to many cells their awkward and ill-shaped appearance: others seem to wither and become shriveled, or, possibly, dessicated; hence, we find cells presenting a pinched, dried, starved appearance: others still maintain their integrity in regard of form and size, but become filled with granular matter, which is probably the product of fatty degeneration; hence we find cells which are dark or granular, or cloudy or nebulous in appearance. Again, all cancers speedily undergo—or are constantly undergoing —fatty degeneration both within and between their component cells; or perhaps it is more correct to say that this change always commences *in* the cells, but that the fat drops are shortly liberated as the result of cell-decay. Here then we find still another element of complexity—namely, the presence of many fat globules, both floating free between the proper cells, and likewise enclosed within, or forming a part of, these cells.

It need not, therefore, be a matter of surprise that cancer cells should bid defiance to any and all rules of classification. It is, indeed, rather a matter of surprise that any attempt at such a classification should ever have been made, seeing that, for all diag-

nostic purposes, we are far better off as we are; and, for all pathological purposes, we should not be a hairs-breadth nearer the truth regarding the real *nature* of cancer *with* a formal classification than we are *without* one.

A very important practical question, however, still presents itself, namely, Can cancer be diagnosticated with any degree of certainty, by its microscopic appearances? It is easy enough to answer this question to my own satisfaction; it is possibly less easy to make the response intelligible to those unaccustomed to the study of cell forms. I believe that the practiced microscopist can have little difficulty in satisfying himself as to the character of a morbid growth, provided always he receives the specimen in a a state fit for examination. I have myself received many specimens for examination which consisted of little bits, snipped from the surface of a morbid growth, and then rolled in a dry paper or rag, and carried in the pocket for hours afterward, until they became perfectly hardened and dry. The idea of forming a conclusion from such specimens as these is simply absurd and ridiculous. The constituent cells of such a specimen must of very necessity undergo changes of form and consistency which cannot be obviated by any artificial means; hence, any conclusions drawn from them must be, to say the least, very unreliable. A specimen intended for microscopic examination should be taken from beneath the surface of the tumor, and as near its centre as possible; it should be examined at once whenever this is practicable, and in any event, it should be kept moist until it passes to the hands of the microscopist. If these conditions be complied with, I believe that a correct conclusion can be arrived at in so large a proportion of cases, that the exceptions are not worth considering, if the examination be made by one accustomed to the study of morbid growths. Moreover, I believe that any one who possesses a microscope of fair quality, and who can use it with a reasonable amount of common sense, can satisfy himself as to whether a morbid growth is or is not cancerous in its nature. Possibly a description of cancer cells will still be expected. They are at once very easy and very difficult to describe. If the illustrations and descriptions of these cells given by Glüge, Paget, Henry H. Smith, Beale, Gross, Moore, Bennett and others, be consulted, they will be found to be all very *like* and all very *unlike*,

except when the same engravings have been used by two or more different authors; and this is simply because no two illustrations representing *actual specimens* can be alike. The distinguishing characteristic of cancer cells is a *want of uniformity*, or an absolute non-conformity to any law of type—and this for reasons which I have already given. It is, indeed, true that a cancerous growth, especially in its early stages, attempts to produce cells which are more or less like those of the tissue out of which, or within which, or near which, it is differentiated, as we so often see in the case of epithelial cancer; but this attempt is never successful, even at the very beginning, and it is shortly abandoned in so far as an allegiance to typical forms is concerned. Hence this very want of uniformity in regard of cell forms, constitutes the pivot upon which the diagnosis turns when the microscope is appealed to. It is not because we *can* classify cancer cells that we *call* them such; but rather because we *cannot* classify them. It is not because they are old microscopic acquaintances that we call them malignant; but rather because they are always strangers. In fact it is just precisely this diversity of appearance that proves their malignancy; for it indicates their rapid and lawless growth, their disrespect for and destruction of adjacent tissues, and their rapid death, and these, taken together, constitute the very essence of malignancy. If fifty specimens of keloid be examined, the ultimate elements of each one will be found to be, not precisely alike—for cells are no more precisely alike than leaves or apples or men are precisely alike—but formed on the same general model as regards shape and size, and, therefore, conforming to a law of type. If fifty specimens of ordinary fatty tumor be examined, the same law will be found to hold good. Moreover, in both these cases, the morbid growth will show some respect for the rights of neighboring tissues. If, indeed, the latter are crowded out of their rightful position, they will not therefore be denied the privilege of existing somewhere else. But an examination of twice this number of cancer specimens will only the more absolutely demonstrate the fact that in place of law of type we have lawlessness of type, and that this very lawlessness is the microscopic peculiarity of cancer. Hence, in the so-called "innocent" or "benignant" growths, we are to look for a kind of multiform unity, and in malignant growths, we may, with equal confidence,

expect a uniform multiformity, or an absolute non-conformity to any ideal cell type.

One other, and scarcely less important point should be noticed. Errors of *location* are generally coincident with diversity of form in cancerous growths, and this should be taken into account in establishing the diagnosis. The very fact that a mass of cells have infiltrated or invaded a tissue or organ, and that they persistently and unaccountably vary in size, form and behavior from the normal cells of such tissue or organ, is all but, and perhaps quite, sufficient to stamp them with the seal of malignancy. They are at once recognized as marauders and pirates, intent only upon the destruction of everything within their reach. To attempt to describe a specimen of cancer cells, is to huddle together as many epithets as we can lay our hands on, to pester and perplex the dictionary makers by bringing forth a new progeny of words, and appropriating them to the same use, and, after all, to fail of giving a reliable description of bodies which obstinately refuse to look twice alike. It seems to me that we best describe cancer cells when we simply say that we *cannot* describe them; when we say that they present an endless diversity of forms, and that, *therefore*, they are cancer cells.

In conclusion, I would lay down the following simple rules for drawing the distinction between innocent and morbid growths; whenever a description of *one* of the cells of a microscopic specimen is a description of *all* of its cells, the chances are as ten to one that it is *not* cancer;—whenever, on the other hand, the cells of such a specimen are so varied in form and size that philology and ingenuity and imagination, and the most unflinching resolution combined, utterly fail to accomplish the task of describing them, the chances are as ten to one that the specimen is from a malignant growth, whatever may be its name or location.

PILL-AGE.—Dr. Brandreth, out of his pills, has scraped together almost $2,000,000, and has life insurance policies amounting to $140,000 besides. It is thought he does not take his own pills.

Doctor's Motto—Patients and long suffering.

ARTICLE III.—*On a few Instruments for the Practical Treatment of Uterine Disease.* By PHILIP ADOLPHUS, M.D., Chicago.

(Fourth paper, continued from the May Number.)

1st. Emmet's Applicator, used to apply medicated solutions to the cervix and uterine cavity.

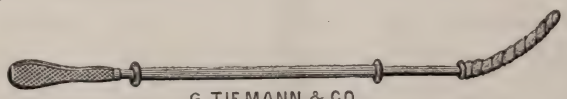
2d. Nott's Intra-Uterine Catheter.

Every one who has handled the perfect instrument, known as Emmet's applicator, is aware of its value. It fulfills the several uses of cleansing the cavity of the cervix and body of the uterus of secretions, and of applying medicated solutions to these parts, with admirable certainty.

Its fitness for the former purpose has been discussed in a previous paper; in this communication the writer will impress the reader with its value, when the medication of this organ is proposed.

Every instrument that is to be used in the uterine cavity, must possess a calibre permitting an easy entrance, and ductility, combined with the requisite firmness. We have seen that Emmet's probe has these qualifications, and that his applicator is a *facsimile* of this instrument,—a little larger, slightly stouter, and flat at its extremity, without the bulb of the other instrument. Made of annealed silver wire, it is capable of assuming every conceivable shape which the hands of an experienced operator may impart to it, and is mounted on a light wooden handle.

A slide, consisting of a compressed coil of brass wire, five inches in length, hollow and flexible, resembling an enlarged watch spring, capped at each extremity by a hollowed bead of gutta-percha, passes over the probe, and acts when the latter is armed with medicated cotton wool, and the coil is propelled towards its point by pushing the roll of cotton off into the neck or cavity of the uterus.



Emmet's Applicator.

It has the following advantages over all instruments used for similar purposes, with which the writer is acquainted: of per-

mitting the introduction of medicated solutions into any part of the cavity, and of depositing them instantly when the parts are reached.

It is convenient to possess probes (applicators) of different lengths, suitable to enter the cavity of the cervix or fundus; one slide will be sufficient for all.

The manner of using the applicator is as follows: Slip the coil over the probe, and arm it with cotton wool. Place patient in the usual position, (semi-prone, when using Sim's Speculum; on the back, when Nott's Speculum is applied) the speculum being in situ, steady the cervix with Nott's Vulsellum, introduce Emmet's probe for the purpose of ascertaining the length, direction and sensitiveness of the uterine cavity; remove it; give the applicator the identical curve which was imparted to the probe, and introduce it, (armed with cotton and moistened with warm water), in the same direction and with equal care, into the uterine cervix or cavity. Remove the applicator now charged with the secretion of the cavity, push the coil or slide towards the end of it, the fouled cotton still adhering will then drop off. This procedure cleanses the parts of accumulated secretions, and prepares them for medication.

Again introduce Emmet's probe as a guide (a very important precept, if you wish to prevent bungling and consequent pain), follow it, on its removal, by another applicator already armed and moistened with the necessary medicated solution, (care must be taken not to *saturate* the cotton wool, else the solution will run into the vagina—a result to be deprecated), insert this into the womb, and whilst sliding the coil towards the cervix with the left hand, withdraw the probe in an opposite direction with the right hand; this manœuvre results in the introduction of a piece of cotton wool, from one to four inches in length, into the uterine cavity, where it may be left in safety, provided the solution is weak.

Much mischief may be done with this instrument as with other caustic holders; for concentrated solutions, as well as liquid caustics, may be applied by it, with ease. The applicator merely places a roll of cotton in the cavity of the uterus; whether the *agent* with which it is charged shall induce benefit or mischief, will depend upon the operator.

This is especially the case with those solutions which do not coagulate or form inert albuminates with the secretions of the cavity. Articles which form these coagulates, when introduced into the cavity smeared with tenacious mucous discharges, are not so dangerous; for these protect the walls from their caustic effect, and preserve the organ in despite of the operator. Far otherwise is it when the heavy muco-purulent covering has been removed, and a denuded, mucous surface, with exposed bloodvessels and capillaries (Nott) receives the caustic application: collapse, general peritonitis, etc., may take place, and death, by metro-peritonitis, has been the result of an application of a solution of ʒ j of nitrate of silver to ℥ j of water, by means of a camel's hair pencil, to the interior of the womb, as related by Noeggerath.*

In order to determine the advantage of intra-uterine applications, we should study the symptoms of chronic uterine affections, uninfluenced by remedial measures.

Thus we find in these cases, abnormal congestion resulting generally from cold taken during menstruation, and leading to acute uterine catarrh (Klob), which forms the sole and principal condition of many cases of dysmenorrhœa (Tilt).

We have, furthermore, affections dating back from former pregnancies and abortions, which profoundly affect the economy. Exciting causes, such as fatigue, excitement, alarm, and change of temperature, often superinduce increased irritation and hyperæmia, which, happening at or about the monthly periods, result in cellulitis, peri-metritis, ovaritis, salpingitis and general peritonitis.

Will the application of fluid and liquid caustics, under these circumstances, be beneficial? Will they not rather produce these complications? Again, if, after these applications, the patient complains of the painful symptoms so graphically described by authors, as sometimes accompanying medication by caustics, and recovers therefrom; has this result been effected by these caustics, or has not rather the inherent force of her constitution saved her from the effects of injudicious treatment?

The writer concludes, from the results of his observations, that *mild applications, judiciously used, are not merely safe but curative.*

* E. Noeggarath's Contributions to Midwifery and Uterine Pathology. 1858, fol. 30.

Furthermore; that caustics to the interior of the womb are hazardous remedies in able hands, but inadmissible in those of the inexperienced and rash.

Much interest has of late been manifested in the discussion of the question of intra-uterine medication, and it has been examined in all its bearings by Kammerer, Nott, Peaslee and Lente. (See papers published in the New York Medical Journal, and the American Journal of Obstetrics). Many other distinguished men have also expressed their views, either for or against the application of concentrated solutions and caustics to the uterine cavity; but while their views are at variance, there is no doubt that the tendency of the practice of many of the leaders of the profession is towards the abandonment of solid caustics and concentrated caustic solutions, as applications for the interior of the womb.*

In connection with the use of the applicator, it will be proper to state that applications of various strengths have been and are constantly applied for erosions, excoriations and ulcerations of the cervix uteri, by the profession at large. This is considered by the writer erroneous practice. For these simple excoriations and erosions are certainly not more painful than the same lesions on the lip or buccal cavity; they exist in almost every healthy woman, and are neither causes of complaint or treatment, and do not come under our cognizance as such. "When an erosion exists on the cervix, I believe that it is almost without an exception but a cropping out of the diseased condition above, or an excoriation from the uterine discharge constantly bathing the parts." † "Erosions are generally accompanied with acute and chronic catarrh

* Surgery of the Cervix. T. A. Emmet. American Journal of Obstetrics, Feb., 1869, fol. 342.

The Treatment of Endometritis by Uterine Injections. I. C. Nott. American Journal of Obstetrics, Nov., 1869, fol. 470.

I. C. Nott. Intra-Uterine Medication. N. Y. Med. Journal, June, 1870; and American Journal of Obstetrics, May, 1870.

Intra-Uterine Medication. E. R. Peaslee. N. Y. Medical Journal, July, 1870.

Prolapsus Uteri; its chief Causes and Treatment. Thos. Addis Emmet. N. Y. Med. Record, May, 1871, fol. 98.

† T. A. Emmet. Op. cit., fol. 97.

of the uterus and vagina, and are caused either by this or other forms of intumescence of mucous membrane." (Klob, p. 239).

"Granulating ulcers rarely exist independently, but are generally combined with chronic uterine affections."* Clinical experience convinces him that the mucous membranes of the uterus in all its parts, are frequently simultaneously and consecutively affected, and that lesions of the cervix co-exist and are superadded. These views are held by Scanzoni, West, Hewit, Klob and other men of eminence. Moreover, the division, by authors, of these diseases, into affections of the mucous membranes of the body and cervix, and affections of the parenchyma of the body and cervix, cannot, in old standing cases, be distinguished clinically.

Therefore, a general unbiassed view of each case, based on its history and on pathological anatomy, should be always attempted, and the treatment based thereon; for it is not logical to apply local treatment to the cervix exclusively, when the body and fundus are equally implicated.

Another point of great practical importance in the treatment of the sexual organs by local applications, which has not, I believe, even been alluded to by writers, is, that different modifications of treatment in like diseases, must be adapted to the varying circumstances of each patient. Hospital patients, the wealthy, and those having leisure, can bear, *ceteris paribus*, more powerful applications for the same diseases; whilst like applications would be inadmissible in patients who visit the office, or those whose circumstances prevent their resting after treatment.

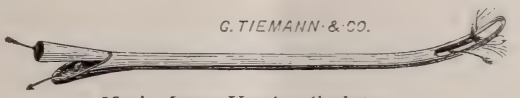
This appears self-evident, and is consequently taken for granted, yet in practice it is constantly neglected.

Nott's Intra-Uterine Catheter, the instrument now to be described, is used for the double purpose of cleaning the cavity of the uterus of secretions, and of medicating it.

It is simply a double current catheter, made of silver, nine inches in length, and constructed in such a manner that the introduced fluid, injected through a narrow tube, not more than one-fifth the calibre of the catheter (situated along its concave wall), passes into the cavity of the womb; rushes out, not merely

* Pathological Anatomy of the Female Sexual Organs. Julius M. Klob, 1868.

alongside the catheter, where it partly escapes from the os uteri; but it also escapes through a wide canal in the convex portion of the instrument, whence it emerges at the opening. The egress of fluids is facilitated by an aperture, an inch in length, on each side of the catheter (the eyes of the instrument).



Nott's Intra-Uterine Catheter.

The instrument is used in the following manner: The patient having been placed on her back or side, the proper speculum is introduced (Nott's or Sim's), Emmet's probe ascertains the direction of the womb, Nott's catheter is now gently applied to the os, and introduced. If it does not enter easily, no force being permissible, the cavity of the cervix is dilated by Nott's dilator, in the manner described in a former paper. After its introduction, a syringe filled with warm water is inserted into the orifice of the catheter, and its contents gently expelled. This is repeated, until the return current emerging from the womb looks clear, showing that the cavity of the uterus is freed of secretions. The syringe is then again filled with an astringent, detergent or sedative solution, and its contents injected. The catheter is removed, a glycerine suppository is left near the os uteri, and the speculum withdrawn.

In the American Journal of Obstetrics, of February, 1869, is a translation by Dr. Joseph Kammerer, of an article by Dr. J. Cohnheim, Berlin, 1868, entitled "Historical Review of Uterine Injections;" which is exhaustive. It contains extracts of the entire literature of intra-uterine injections up to 1868. Having examined everything accessible on that subject, that had been written up to date; and having, since the introduction of the Intra-Uterine Catheter, by I. C. Nott, of New York City, to the profession in November, 1869, injected the uterine cavity over three hundred times, with tepid water and mild astringent fluids, without pain or other disagreeable manifestations to the patient at the time, or afterwards; the writer merely repeats what has been so well said by Thomas, Tilt, Peaslee, Kammerer, Noeggerath, but especially by Nott, that *intra-uterine injections are*

dangerous whenever in their performance the following prerequisites are disregarded:

1st. *There must be a non-irritable uterus.* Whenever bipalpation or gentle probing produces pain, even gentle ablutions with tepid salt water must be held in abeyance until the parts have been quieted by local antiphlogistic and calmative treatment; then only may tepid injections, medicated with anodynes, be tried, to be succeeded by the mildest detergents, which are rendered stronger or weaker, or are altered and replaced by others, as circumstances dictate. (Nott).

Should we neglect this imperative rule, intense pain (uterine colic) or sudden collapse is the immediate result, and peritonitis, haematocele, ovaritis, etc., follow in a few hours. "The uterus, like the peritoneum, the periosteum and bones, is insensible in its normal state, but exquisitely sensitive when inflamed." (Nott on Intra-Uterine Medication. American Journal of Obstetrics, May, 1870, fol. 58.)

2d. *There must be present an open os, canal of cervix, and internal os;* if these are not patent, they must be opened by sponge and laminaria tents, incision or dilators. Neither of these can be used when irritability of parts is present; this should be allayed by the means mentioned above. (Nott, Peaslee and Kammerer.)

3d. *A proper instrument is indispensable.* Whatever instrument is used, the injected fluid should be permitted to flow away with ease through the instrument itself, or by the side of it. Authors use various instruments: Peaslee, Kammerer, Noeggerath, Scanzoni and Kiwish use syringes; Tilt and Nott, catheters; with the latter instrument were performed all the injections of the writer.

4th. *The vehicle should be of proper temperature.* Water and other fluids of lower temperature than the body have often produced painful contractions of the uterus; therefore it should be injected slowly, of the heat of the body. Moreover, care should be taken not to inject a liquid which will coagulate in the cavity of the uterus, or in the tube of the catheter; the precaution of carefully examining the instrument immediately before injection and after it, in order to insure its patency, is self-evident; immediate removal of the instrument becomes imperative whenever mucus or blood obstructs either of the tubes.

The double current catheter of Nott cannot distend the uterus, (for the fluid discharges itself as rapidly as it enters), therefore the question, how much or how little should be injected for the purpose of cleansing and medication is not relevant.

To these precautions the writer adds:

5th. That caustic solutions are inadmissible, and must not be used; for they are liable to produce immediate and remote symptoms, prejudicial to the patient and discreditable to the physician. Furthermore, on emerging from the uterus, they collect in the vagina and act mischievously. The writer is aware that eminent men use caustic applications, but they also recount symptoms and phenomena occurring during intra-uterine medication, which he has not experienced when using a graduated course of dilute medication.

The use of Nott's intra-uterine catheter will, however, always be circumscribed, for the following reasons:

1st. With it, mild solutions must be used exclusively.

2d. In order to insure success, it would require frequent injections, which are not admissible in private practice, for they consume the time of the practitioner and the means of the patient. For hospital purposes this instrument is excellent, and should be adopted extensively.

The great merit of Nott in its introduction, is not merely that he has shown that intra-uterine injections are always safe when the above-named precautions are strictly followed; but that he has proved by experiments that concentrated solutions introduced into the uterine cavity either by injection or ingestion, are dangerous; that they are often apparently harmless, only because the secretions of the cavity protect the uterus from harm; or, because the caustic unites with these secretions, and forms inert albuminates.

The writer states, unqualifiedly, that injections practiced with the precautions herein detailed are devoid of the slightest danger and as harmless in their results, in competent hands, as the simplest operation in surgery. This opinion is based on experimental inquiry, and is therefore worth more than the theoretical dicta of eminent men, who have had no practical experience in its performance, and are therefore not competent to express an authoritative opinion.

(The injections performed by the writer were instituted for the purpose of ascertaining, not so much the necessity and appropriateness of uterine injections in any given case; or their superiority over other methods of intra-uterine medication; as the safety of the operation when all avoidable non-indications were set aside).

Finally, the same principles govern uterine injection with those of uterine ingestion, the same hazards are encountered in both cases by concentrated solutions. The writer prefers, with Peaslee, the use of ingestion; for, with Emmet's applicator, cotton wool charged with mild solutions may be left in the womb until they are discharged, without pain or other detriment to the patient. The time will arrive, thanks to Nott and others, when the mucous membranes of the uterus will be treated like the same membranes in other portions of the body, and when sound anatomical and pathological views will govern the practice of intra-uterine medication.

169 Dearborn Street.

ARTICLE IV.—*Delivery of Extra-uterine Fœtus through the Abdominal Walls after four Years.* Reported by J. H. BEECH, M.D., of Coldwater, Michigan.

Mrs. Alexander Jameson came to my office August 12, 1870. She is 28 years of age—living with second husband—a well proportioned woman, weighing about 98 pounds—florid complexion, auburn hair, sanguine temperament—had one daughter, by former husband, now eight years old.

Menses always normal until about four years ago, when she believed herself to be pregnant. About eight weeks after regular menstruation she had a "miscarriage." Attended by her family physician, Dr. R. Bevier, of Plymouth, Ohio, where she then resided. Eight weeks from above accident she thought she felt "quickening," the abdomen and mammæ gradually increasing. From that time she "felt motion," until the period at which she expected labor, and to which time her size increased in normal degree. Some difficulty existed with the urinary organs, which

she supposed grew out of her enciente condition. In other respects she was healthy. Apparent labor came on at the expected time, and the prospect of delivery was not given up for several days. After this period, the size of the abdomen and mammæ diminished, and with the subsidence the abdominal tumor became harder and more movable.

Menstruation returned after a time. She now suffered occasional lancinating pains in the tumor, which had seemed to become more prominent of late. It could now be moved as freely as a short pedicled, ovarian tumor can ordinarily be. It filled the left side of the abdomen a very little more than the right; was not very sensitive, and was even and uniform to external touch and sight. Per vaginam: uterus normal, very slightly inclined toward right of pelvis, and could be moved independent of tumor.

Dr. Frank Buckland was called in consultation. Her opinion that it originated in conception was presumed to be correct; but as the outlines of a fœtus could not be made out, it was believed to be mainly fibrous growth. Its removal being advised, board in the city was engaged, and the time set for the operation in about three weeks, which would be at close of next menstruation. At the appointed time I received a letter from the husband, stating that Mrs. J. was ill of "chills and fever."

More than two months after, i. e., about the middle of November, Dr. J. L. Hagerty, of Jamestown, Ind., informed me that he had been attending Mrs. J. through a very severe fever of typho-malarial character, but which exhibited such eccentricities that Dr. T. McNabb, of Fremont, Ind., had been associated with him in charge of the case. She was now slowly convalescing, and anxious to have an operation before she should get strong enough to ride to Coldwater.

Tuesday, November 22, 1870, visited Mrs. Jameson for operation, Drs. S. S. Cutter and Frank Buckland, of Coldwater, Mich., Drs. J. L. Hagerty, of Jamestown, Ind., T. McNabb, of Fremont, Ind., and H. D. Wood, of Angola, Ind., assisting. Patient feeble, but resolute; abdominal walls drawn tightly over resisting mass, which presented but one elastic point, that was about three inches from umbilicus, on a line towards anterior superior spinous process of left ilium.

The patient and friends desired, and received, a promise that if

unusual danger presented, the operation should cease, and whatever wound had been made be closed.

Anæsthesia having been produced by chloroform, an incision in linea alba was made about eight inches long. The omentum majus was found adherent to the anterior wall of the abdomen, and by its posterior surface to the entire front of the tumor. Avoiding the conspicuous bloodvessels, an incision was made through the anterior portion of the omentum and the abdominal walls pushed back of the mass, which could not be raised in the least degree from the pelvis. A trocar and canula were plunged into the elastic portion, above mentioned, and about f℥ij of thick, grumous, purulent fluid were evacuated. Evidence of dangerous prostration appearing, as sudden sinking of the pulse, gasping respirations, extreme pallor and shriveled surface, it was unanimously agreed that the abdomen should be closed without further operative efforts; Drs. Cutter and McNabb giving their entire attention to efforts at resuscitation of the p atient. Drs. Wood, Hagerty and Buckland rendered most efficient and expeditious service in bringing forward the abdominal walls, and the wound was made secure with interrupted sutures and adhesive straps. Scarcely any blood had been lost, or serum discharged.

Dr. Hagerty subsequently informed me that the prostration continued in extreme degrees for fourteen hours. Pulse at times could not be counted; vomiting and retching severe, followed by eructation for several hours.

The pulse came to 135, when irregular chills came on, but subsided under the use of narcotics, tonics, preparations of potassa, and local detergents and antiseptics. Suture pins were removed on the fourth, fifth and sixth days.

A considerable portion of the wound healed by first intention; but a space opposite the puncture made with the trocar remained open.

Dr. Hagerty leaving for Chicago, some two weeks after the operation, the patient was placed in the care of Dr. T. McNabb, of Fremont, Ind., who pursued the same general course, and had the satisfaction of establishing permanent convalescence.

Dr. McNabb leaving for Ann Arbor, some three weeks after the time when he took charge of the patient, she came under the care of Dr. H. D. Wood, of Angola, Ind., who continued the same general course of treatment for some time.

The communication between the track of the trocar and the unclosed portion of the external wound becoming more direct and patulous, Dr. Wood was enabled to reach with a probe crepitating surface, which he correctly diagnosed as fœtal bones, and on the 24th day of January, 1871, assisted by Dr. I. K. Dunning, of Angola, Ind., (under local anæsthesia by æther spray), enlarged the opening, and removed a partially decomposed fœtus, weighing about seven pounds, of male sex.

I have delayed the report of this interesting case, for an answer to a communication to Dr. Wood, asking for details of the final operation, but have received none. From the husband and from Dr. Hagerty, who, on his return, resumed charge of the patient, I have learned the essential facts, and that convalescence has been steady. She menstruated April 20th; some menstrual flow passing through the external wound. Menstruated again at regular period, showing no color or unusual discharge through the wound. She is now attending to some household duties, although there is still a slight discharge from the external wound, which is about three lines in diameter, and when injected will hold about f℥ij.

ARTICLE V. — *Case of Sub-acute Colitis, with Suppuration.* By JAMES S. WHITMIRE, M.D., Metamora, Ill.

A. E. J., aged 24, called at our office March 1, 1871. He is now employed in a dry goods store in a neighboring town; but previous to his entering this establishment, he had been clerking for several years in a retail grocery store in this place. He is now complaining of a steady aching pain in the hypogastrium, extending to the left flexure of the colon. He complained of great aggravation of the pain on steady pressure with the hand over this region, and more or less borborygmi were induced by manipulation over this region.

His stools were very much too frequent and thin, but not specially liquid, excepting just at the close of defecation; and a great quantity of thick tenacious mucus was present in every evacua-

tion, and very often this mucus was streaked with blood, no great amount, however, being passed at any one time. He said that he had been thus affected for about three or four months, and had, by this time, though under the care of a physician, become very much emaciated and anemic, having, in this time, lost thirty lbs. in weight.

Finding himself continually losing rather than otherwise, he removed his quarters to a friend in this vicinity for rest and treatment. We diagnosed sub-acute inflammation and ulceration of the left and, probably, the whole transverse colon. Prognosis:—recovery, if complete, will be very tedious.

We prescribed at the first a dose of castor oil to carry off the contents of the bowels, to be followed with a powder composed of bismuth sub-nit. gr. xv., pulv. ipecac. gr. j, to be taken every four hours during the daytime; also a mixture composed of

℞

Spt. Nit.,		℥ss.
Carbolic Acid,		gr. xv.
Ol. Terebinth.,		℥jss.
Glycerine,		℥jss.
Mucil. Acaciæ,	āā	℥j.
Elixir Paregoric,		

M.

Of this mixture he was to take one teaspoonful, in water, between each powder; the directions being that he must take the powders five times and the mixture four times per day. We also ordered six drops of the oxy-sulph. of iron, with sulphate of quinine dissolved in it, three times per day, in water, at regular meals. This iron mixture is simply a solution of sulphate of iron in nitric acid and water. A strict regimen was enjoined, without which, I assured him, all treatment or medication would be useless; hence, beef soup, with rice boiled with it, was to be his exclusive diet till otherwise ordered; none of the rice, however, was permitted to be taken, excepting so much as naturally strained through a cloth. On this treatment and regimen I kept him for eight or ten days, when we found that his stools were becoming more consistent and less frequent. We now made the same prescriptions, and continued the regimen, excepting that we allowed a medium-sized roast potato at dinner and a soft-boiled egg at breakfast. The beef soup was permitted at any time

during the day when he was hungry or required drink. In about twenty days from the commencement of treatment we added gr. iij. of exsiccated sulph. alumin. to the powders, and continued the same course in regimen, etc., lessening the number of the powders to four per day, and consequently the mixture to three doses. This course was pursued for, probably, twenty days longer, when our patient was discharged cured and able to attend to his usual occupation.

Externally, along the course of the tenderness, from the commencement of the treatment, we used pustulation by means of ol. tiglii one part, and ol. terebinth. three parts, so as to keep the skin quite sore.

After the fæces began to assume some consistency, we often gave a laxative to mildly clear out the alimentary tract; for this purpose we preferred a decoction of rhei, zingiberis and bicarb. sodæ. We perceived, from time to time, as the case progressed, that the thick, tenacious mucus grew less and less; often, however, this mucus would completely envelop a lump of fæcal matter unconnected with the rest, which evidently had been formed in one of the pouches of the colon, and in that place had received its coating.

One of the points in this case is, that this young man had been tortured and racked with pain, and become so emaciated as to incapacitate him for business; yet his case was successfully treated without the least particle of opium or its preparations, save the little that was in his mixture in the form of paregoric; showing clearly, to my mind, that the carbolic acid and bismuth, used in the prescription, had a decided anæsthetic effect upon the mucous membranes with which they came in contact, independent of any other curative agency that they may have exercised in the process of cure. The excess of nitric acid in the iron mixture, probably yielded a favorable influence in the speedy and final termination of the case. This young man, no doubt, had contracted the disease from the habit of eating sugar, crackers, cheese, etc., between meals during the years that he stood in the grocery store; thus keeping the stomach constantly at work so as to produce debility of that viscus, and, hence, imperfect digestion for a long time; consequently, the food taken, instead of being properly assimilated and taken into the system for necessary repairs, became a

source of irritation, and occasioned the state of things we have described; and more especially the sugar, taken at all times, producing a tendency to acidity in an enfeebled stomach, instead of being assimilated and converted into fat, either to be deposited in the tissues as a healthy organism, or taken into the circulation to keep up the normal animal temperature.

ARTICLE VI.—*Case of Hepatic Abscess, involving the Gall Bladder, successfully treated, by injections of solutions of Iodine.* By J. A. GOLDSBERRY, M.D., Annapolis, Indiana.

June 16, 1866, I was called to see Hon. S. T. E., who had long been a sufferer from an abscess. He gave me the following brief history of his case:

On the 2d day of March, 1863, while at his place of business, (merchant) he was suddenly seized with an excruciating pain in the right side, just beneath the short ribs. The pain was deeply seated, and so severe as to render him, in a short time, almost helpless. There was soon noticed some enlargement of the liver, and in about two weeks from the day of the attack, there was observed a "*bulging*" in the iliac region of the right side. The pain was now of a gnawing or throbbing character, accompanied by violent rigors, alternating with flushes of heat, and some gastric irritation. After two months of terrible suffering, which had made sad havoc on a constitution naturally strong and powerful, there was discharged externally, a very large quantity of horribly fetid pus; this relieved materially, for the time being, the local symptoms, but so profuse was the daily discharge of matter, that for long weeks and months death seemed imminent almost hourly. In the meantime, pus burrowed among the abdominal muscles and sought new outlets. At the end of the sixth month, hydrothorax and a general dropsical condition supervened, which sequela, it was thought, rendered the case hopeless in the extreme. At the end of the first twelve months of his affliction, his *general* condition was thought to have improved a little; no amelioration, how-

ever, in the local trouble. Pus now passed out through three openings: one, the original outlet, situated about one inch to the right of, and three inches below, the umbilicus; one, a little below, and to the right of, this; and a third through the umbilicus itself. From this time up to the period when I was first called to see him, there was but little change in the local or constitutional condition.

Condition of patient on my first visit: Closely confined to his bed, and nearly helpless; very much emaciated; extreme debility; appetite capricious—sometimes voracious, at other times entirely wanting; bowels constipated; pus *occasionally* flowing through the umbilicus, and *constantly* from an opening situated just *above* Poupart's ligament, and about midway between the anterior superior spinous process and the spine of the pubes; the two other outlets spoken of having closed up sometime previous. Surrounding, and completely hiding from view the orifice of the lower sinus, was a large mass of fungous flesh, always highly sensitive and, at times, exceedingly painful. A sallow and jaundiced condition of the eye and skin; the features wan, worn and haggard, every lineament of the face expressive of the extremest physical suffering. Abdomen tympanitic, and the whole of its right side, from the upper margin of the hypochondrium down to the inguinal region, sensitive to the touch and painful on pressure. Condition of the kidneys apparently normal. He had just passed through a terrible paroxysm of pain, to which he was frequently subject, caused by the temporary closure of the orifice of the lower sinus. He informed me that, for three years and three months, he had been a sufferer; that through most of this period he had been under medical treatment; that his case had been examined by a number of medical gentlemen, and that, from time to time, he had had the benefit of superior medical advice; that life in his present condition was a burden; that though he had long since given up all hope of recovery, he thought it possible that something might be done at least to *mitigate* his sufferings, and smooth, to some extent, his pathway to the grave. He was willing, he said, to submit to any kind of treatment, however painful or unpleasant it might be, if there was a prospect of affording even *temporary* relief.

I learned that there had been a difference of opinion among the medical friends who had seen and treated the case, as to the real nature of the ailment. Some regarded it as a case of hepatic

abscess, whilst others insisted that the disease originated in the lumbar vertebræ. After having carefully examined the case, and after having listened to my friend's very intelligent account of it, taking the following facts and symptoms connected with its history into consideration, I was led to the conclusion, that, whatever might be, or might have been, in the progress of the disease, its complications, and however serious in their nature, I had before me, primarily, at least, a case of abscess of the liver.

The patient was fifty-two years of age, of a sanguine-nervous temperament, and up to the present trouble, had all his life enjoyed remarkably good health. He was one of a large family, and all had been singularly free from diseases of a hereditary character; his parents were both living, healthy, active and vigorous. There was certainly present no hereditary taint, no tuberculous diathesis. The attack was *not* slow, gradual and insidious, as is common in spinal disease; no previous lameness; no soreness, nor even pain in the lumbar region; nor was the discharge, at any time, of that character which we find in diseases of a strumous nature; on the contrary, we find present several very valuable diagnostic signs in favor of hepatic abscess, viz: the manner of attack, being stricken down suddenly, in the midst of good health; the *locality*, intensity and character of the pain, enlargement of the liver, difficulty in breathing, and inability to lie on the left side. Of course my prognosis was as unfavorable as it could well be, and I frankly told my friend that his recovery was not at all probable, but that, in my opinion, something might be done to bring about, at least, *partial* relief, and thereby render his condition a little more comfortable.

Having informed him what would be my course of treatment, that it would necessarily be protracted and painful, and, after all, the result very uncertain, he promptly signified his willingness to submit to it, and insisted that I commence at once. Considering the fact that he had been subjected to a long course of constitutional remedies, indeed that the treatment had been almost *exclusively* constitutional, and being quite well satisfied that the disease was local in its nature; that it did not depend on any hereditary vice; that there was not now, nor had there been, any spinal trouble, no caries of the lumbar vertebræ or pelvic bones, but that the starting point was in the liver itself, and that in all probability

there was still a serious lesion there; the intestinal lesion, for such there was, evidenced by the passage through one of the fistulous tracks of a very large ascaris lumbricoid; the hydrothorax and anasarca, which existed in the early history of the case; the frightful destruction wrought among the abdominal muscles, the consequent debility and prostration, were all, so to speak, children of one common father, all drawing their nourishment from the same foul and contaminating source; hence I decided that my treatment should be addressed mainly to the local difficulty. The first step in the treatment consisted in removing from the orifice of the lower and principal sinus, the mass of morbid growth which seriously obstructed the free exit of matter, and which, for months, had been the source of indescribable suffering.

This I accomplished in the course of ten days by the daily application of argenti nitras. The orifice being fully exposed, I explored the sinus with the common silver pocket probe, carrying it upward and backward to the depth of four inches, when I encountered resistance of a soft, yielding nature, and found it utterly impossible, in all my subsequent explorations, to pass the probe beyond the point first reached. I was not induced, however, by this fact to even *hope* that I had arrived at the bottom of the canal, but was of the opinion, which the future history of the case painfully confirmed, that still farther upward and backward was to be found the real source of danger. I was now ready to begin the treatment proper, and though it extended through a period of many weary months, my therapeutics was exceedingly limited and simple.

For the first week I contented myself with injecting into the fistula, twice daily, tepid water, cleansing the track as thoroughly as possible. I substituted for this a weak solution of chloride of sodium, gradually increasing its strength, until more or less pain was produced. After having tested, as far as I could, the capacity of the sinus, and of the patient to *tolerate* the use of injections, I began the use of iodine, the remedy on which I expected to chiefly rely in my future treatment of the case, and in the use of which, I expected to succeed or fail in relieving my patient. The preparation employed was "Lugol's" solution, consisting of four grains of iodine to one pint of distilled water, and double the quantity of iodide potassium.

That I might now reach, if possible, with my injections, the source of the fistulous track, I prepared a small caoutchouc catheter; cutting it to the desired length, and clipping off the blind extremity, I passed it into the sinus to the distance of three and a half inches. I was not surprised to find that this procedure *increased* the *capacity* of the canal, that is, that I was thus enabled to throw the solution beyond the point previously reached. Prior to the introduction of the catheter, not quite two drams of fluid would fill the canal, *now* a half ounce was readily retained. The iodine injections were followed up once daily, for a period of six weeks, at the end of which time, the improvement in the case becoming so marked, I used it every second day.

About two months after taking charge of the case, I was not a little surprised, and, I might add, somewhat alarmed, on calling upon my patient, to find flowing from the fistula, what appeared to be, and which a close examination proved to be, *bile*. This was, to me, a new feature in the case, though my patient informed me that he had noticed a discharge of a similar character before, and that he had observed it, for the first time, three or four months before my connection with the case. Of course, there could not longer be any doubt as to the true source of the abscess. Doubtless the disease in the liver was extensive, and embraced that part of its under surface in relation with the upper surface of the body of the gall bladder.

During the long suppurative process in the liver, inflammatory action was set up in the wall of the gall bladder, resulting, by ulceration, in a perforation of its coats, hence, the presence of bile. It might be proper to say that the discharge of bile was not *constant*, but occurred only at intervals of every three or four weeks, and lasting each time from one to two days. I now increased the strength of the solution one-half, and continued to use it once every second or third day, up to the middle of November, the case having been in my charge about five months, at which period a small quantity of bile passed through the sinus *for the last time*.

The condition of the patient at this time was indeed encouraging; his general health had greatly improved, and the local trouble gave signs that were flattering and hopeful. He had dispensed with crutches, which he had been using for several weeks, and

with the assistance of a cane, was now able to walk about the streets. The fistulous track was slowly but *constantly* contracting, evidenced by its diminished capacity and the necessity of substituting for the catheter used until now, one of less size, and the quantity of matter discharged was decreasing daily. The patient complaining but little from the injections, I now quadrupled the strength of the solution first used and employed it in this strength, once or twice every week, until, by reason of the gradually diminishing calibre of the fistula, it became impracticable to any longer introduce the syringe.

Sometime in the month of June, 1867, about one month after the last injection, and twelve months after treatment by their use commenced, all discharge ceased, and the fistula finally closed. A few weeks after this event, which I had labored and waited for with no little solicitude, and that my long-suffering patient so much desired to realize, he was suddenly attacked with a very severe pain, originating in the right hypochondrium, but soon locating itself in the stomach. The attack seemed to be of a neuralgic character, was attended with free emesis, and lasted from two to three hours. This was soon followed by another of like character, and for the next six months, at intervals of one, two or three weeks, these frightful and distressing paroxysms continued to come up, telling fearfully on his general health, and creating a good deal of anxiety in the minds of patient, friends and physician, as to the ultimate result. But with their cessation, the system promptly rallied, and soon regained all it had lost. Since that time the health of my friend has been excellent; his capacity for labor, both physical and mental, and his powers of endurance, are but little impaired. One, familiar with the severe and protracted struggle through which he has passed, to see him now, the very personification of good health and vitality, moving about with the freedom and facility of a sprightly boy, must be impressed with the fact that he is a striking example of the truth of that proverbial saying, "as long as there is life there is hope."

BOHEA-MIANS.—The feminines who tease for admission to "mixed clinics." In case of refusal, "*Gunpowder*" is threatened.

ARTICLE VII.—*Hypodermic Medication.* By T. CURTIS SMITH, M.D., Middleport, Ohio.

My excuse for this article is a desire to extend the knowledge and use of a very valuable means of treating many diseases. There is no method of treatment now in use as highly beneficial as this in painful and spasmodic affections, as well also as in many not of this class.

HISTORY.

Hypodermic medication was first discovered by Alexander Wood, of Edinburgh, in 1843. He was led to this discovery *First*, by being strongly impressed by Valleix' theory of there being four points in every sensitive nerve, more liable to be affected by neuralgia than any other portions.*

1st.—The point of emergence from its long encasement.

2nd.—When it traverses the muscle.

3rd.—Its peripheral termination.

4th.—When it approaches nearest the surface of the body.

The second step that led him to the discovery was the invention and use of an instrument to inject *nevi*, by Ferguson. Wood, believing neuralgia to be a local disease, it ought to be treated locally. He immediately devised an instrument to prove his theory, and had not long to wait before an opportunity offered to test it. "An old lady 80 years of age, the subject of cervico-bronchial neuralgia, was his first patient. An injection of thirty drops of vinous solution of morphia, on the shoulder at the sensitive point, gave almost instant relief, and soon put her to sleep. Next morning she was still asleep, but easily aroused. The one injection, although it caused at the time considerable alarm, entirely cured the patient of the neuralgia."†

After this, in and around Edinburgh, the hypodermic use of some preparation of opium was frequently practiced. Wood believed it necessary to localize the remedy to make it effectual for the relief of pain, though he recognized the systemic effects of the remedies thus applied. His first publication on the subject

* Gallaher, N. Y. Journal for May, 1871, pp. 532–3.

† Gallaher, N. Y. Jour. Med. May, 1871, p. 533.

was in 1855, twelve years after its discovery. His priority was disputed by* Rynd, of Dublin, for himself, and by the friends of Kurzak, of Vienna, for him. The theory of Wood and "the discovery of the practicability and utility of introducing medicine under the skin for the relief of local pain,"† and that it must be *locally applied*, constitutes the first period in the history of "Hypodermical Medication."

This theory remained undisputed until 1859, when Charles Hunter, of London, published his first paper, entitled "Experiments Relative to the Hypodermic Treatment of Disease."‡ He originated the term *hypodermic*, which is the one now generally used, though the term subcutaneous is perhaps equally proper. Hunter demonstrated "that the physiological and therapeutical effects of medicines thus administered are procured through the agency of the blood, and that § localization of the injection is not necessary."

Great praise is due to Wood for the discovery, and equally great to Hunter for his untiring efforts to extend the use of the remedy to the relief of a greater range of diseases than it could possibly have been under the localization theory of Wood. From 1855, and especially after Hunter's paper in 1859, the *hypodermic* method of administering remedies spread rapidly over Europe, and to this country. Courty and Behier, in France; Scanzoni, of Wurtzburg; Oppolzer, of Vienna; Graefe, of Berlin, and others, brought the remedy into use in their respective countries.

The first ‖ account I can find of its introduction into this country, *was in* 1858, by the late Prof. Geo. T. Elliott, of New York,¶ who introduced into Bellevue Hospital, the use of morphia hypodermically "in the treatment of sciatica." Since 1859, it has rapidly advanced in frequency of use, and the number who use it, but Austin states it to be "still very much unappreciated," and states further "there are still many practitioners who will not

* Bartholow, Hypo. Med. pp. 13–4.

† Bartholow, p. 13.

‡ Bartholow, Hyp. Med. p. 15.

§ Bartholow, p. 13.

‖ Bartholow believes it was first used by Ruppaner, of Boston, in 1860. See p. 18.

¶ R. B. Maurey, Amer. Jour. Med. Sci., Oct. 1866, p. 373.

admit that there *can* be any particular advantage in it which the old way of giving medicines does not offer."* Similar prejudices exist in this country. Those who employ the hypodermic method are largely in the minority. Some oppose it because it is an innovation upon an old method; others, still, unacquainted in a *practical* way with the mode of using it, are afraid of its power. Besides its first use by Elliott, we have in this country articles from Ruppaner,† Storer, and Warren, of Boston; Reeves, McElroy, and Bartholow, of Ohio; Catlin, of Connecticut; Dickson, Hutchinson, and Mitchell, of Philadelphia, besides others in various parts of the States.

ADVANTAGES OF THIS METHOD.

There is perhaps no one who has given this method a fair and general trial, who will fail to speak well of its value as a means of treating many and various forms of diseases, and as being superior to the old stomachic method of administration in VERY MANY INSTANCES.

Gallaher, of Pittsburgh, Pa., states:‡ The hypodermic method of giving medicines is now so well established that no practitioner of any standing will denounce it, or refuse to avail himself of its advantages. Our periodicals, from every source, "are teeming with its triumphs," and men in the profession, high and low, throughout nearly every part of the world, are rapidly extending its usefulness, and the breadth and utility of its application in disease and for experimental purposes. Among its advantages may be named: 1st, and probably least, economy of medicine, which can only be an object in case of very high price, or great scarcity of an article. 2nd. Rapidity of action. The full effects of a remedy are manifested in from five to twenty minutes. This is a great object in very painful or severely spasmodic diseases, as colic, cholera morbus, neuralgia, congestive chills, convulsions, etc. 3rd. Intensity of effect. The intensity is greater, because the whole portion influences the nervous system, within a short space of time, compared with absorption by the stomach. 4th. The certainty of action. This is a *great object in any remedy.*

* Practitioner, July, 1868.

† Bartholow, p. 18.

‡ N. Y. Med. Jour. May, 1871, p. 535.

When a remedy is thus administered it is next to impossible for it to fail to act. It is placed in immediate contact with the absorbents and capillaries, and must, almost of necessity, be carried into the blood, which is the medium of its action on the nervous system. 5th. Greater permanence of effect. Instances are recorded of diseases neuralgic in character, having resisted the internal use of remedies for years, being permanently cured by a few hypodermic injections. Wood's first patient was entirely cured by one injection. One obstinate case of frontal headache, treated by myself, has remained cured for near two years, though but one injection was used. Another case of cephalalgia was relieved eight months by one injection, and eighteen months from a second. Of the permanence, Dr. Austin * says "the advantages of morphia, hypodermically administered, over the opiate medication by the stomach, are such as would be *a priori* incredible, nor can they yet be fully explained. In particular, it is impossible to account for the far greater permanence of its action in relieving nerve pain, which is so marked as that its discovery has initiated a new era in the treatment of neuralgias." 6th. Purity in the action of a drug. By this method a drug cannot be changed in character, as it often may be in the stomach or in its passage along the alimentary tube, by actions or reactions of the natural or morbid secretions with which they come in contact. No† such failure can occur in the therapeutic action when they are injected into the cellular tissue. 7th. The facility of affecting the system in cases where, from irritability of the stomach or rectum, the remedies cannot be retained, or, if retained, the morbid condition of the viscera prevents the absorption of the remedy, or the secretions to some extent neutralize it. 8th. Safety of the method. It is perhaps as safe as any method of administering remedies, when proper caution is used. Prof. Naussbaum, ‡ of Munich, was injected 2000 times, before any accident occurred, and this probably from injecting a vein, and not fatal. Gallaher mentions a physician in Pittsburgh, who has been operated on over 1400 times, without the occurrence of an unpleasant symptom beyond the production of two "pustules." Another under his care in

* Bartholow, pp. 53–4.

† Gallaher, N. Y. Med Jour. May, 1871, p. 537.

‡ Gallaher, N. Y. Med. Jour. p. 536.

which he had used over one hundred injections without *any* unpleasant symptoms. Dr. Charles Hunter, in his remarks before the Clinical * Society, of London, reports an annual experience of over 2000 cases, without observing any risk in the method, "whether there was disease of the *heart* or not." Graefe has † injected the temporal region hundreds of times. Dr. Wood made over one hundred injections in one patient. Eulenberg used it in one case *four hundred times*, without meeting with a single instance of unpleasant results. I have myself used it several hundred times in different patients. *Thirty* times being the most in any one case, and have *never* noticed any serious effects from it yet. 9th. Saving of strength, or, as Hunter has it,‡ avoidance of exhaustion. This is an important advantage, for in cases of extreme pain, or spasm, the sooner it is cut short the better the chance for the patient. This may be instanced where the jaws are closed *spasmodically*, *preventing stomachic administration*, or when the *shock from the pain is so great that the system fails to respond quickly to remedies given by the mouth.* Cholera, colic, and tetanus, are examples of this. But these conditions do not prevent the rapid absorption and effects of the remedy *hypodermically administered.* Who of our readers has not seen cases which he knew he could snatch from the jaws of death if he could only get his remedies to act before the powers of nature gave way? In such cases, this is *the remedy with which to save*, *if not life*, *certainly a vast deal of suffering.* 10th. The advantage of the absence or avoidance of the unpleasant symptoms that often follow the stomachic administration of some medicines. This is certainly very marked in many cases, and Hunter argues that the avoidance is still more complete by inserting the remedy at a distance from the seat of pain. I have found many cases to whom I dared not give morphia by the stomach, but, nevertheless, complained very little from its hypodermic use. But as a rule, in my hands, the effects have been quite the same as by the stomach, but as I have usually practiced the use of the remedy locally, it may be, as Hunter charges, that this caused the ill effects of vertigo,

* London Lancet, March, 1871, p. 161.
† Amer. Jour. Med. Sci. April, 1866, p. 429.
‡ Am. Jour. Med. Sci. July, 1865, p. 207.

nausea, etc. 11th. Saving of time to the practitioner. This is often a great object when pressed with business or urgent calls. The difference between relieving the patient in five minutes by this method, and waiting from one-half to two or three hours for relief from pain by the old method, is frequently no small item of advantage.

There can be no question that the administration of remedies by the hypodermic method of introducing medicines into the subcutaneous cellular tissue is one of the most important additions to our remedial resources, that we have lately acquired.

As* a means of relieving pain, it rivals even the inhalation of chloroform in certainty, and rapidity of action, and surpasses it in permanency of effect, while it is comparatively free from objections which might be made in regard to dangers of fatality or slighter ill effects.

DANGERS.

Like other powerful means of relief, it will prove dangerous when improperly used. As in entering a vein, or in using too large a dose, from which sudden prostration, nausea, vomiting, excessive itching, painful abscess, or even death has been caused by its use. But these are never known to occur when due precaution is taken. *It is my opinion, based on careful observation, that the injection of a vein can quite invariably be avoided by inserting the needle one inch under the integument into the cellular tissue, and then before injecting the solution,* WITHDRAW THE POINT OF THE NEEDLE ONE-FOURTH OR ONE-HALF OF AN INCH, *then raise the integument with the needle, holding the instrument parallel with the surface into which it is inserted. By this precaution, the vein if punctured will be pouring out its own blood, and will, therefore, not be able, by any possibility, to carry the solution directly to the heart. The only exception I can conceive to the success of this variation would be when the needle happened to traverse the course of a vein for the last quarter or half inch of its course* UNDER *the skin.* CERTAINLY A RARE OCCURRENCE. *But even if a vein should thus be entered, the little force employed to elevate the integument with the needle, would rupture the thin walls of so small a vein, thus allowing it*

* Amer. Journal Medical Science, April, 1866, p. 427.

to pour out its own blood into the cellular tissue, and while this is taking place, the surrounding CAPILLARIES *and* ABSORBENTS *will take up the solution, leaving the poured-out blood the* LAST TO BE TAKEN UP. *I have never seen this direction to avoid injecting a vein given by any authority*, BUT CONSIDER IT OF VITAL IMPORTANCE THAT THIS PRECAUTION BE STRICTLY OBSERVED.

Professor Naussbaum,* after injecting himself over 2000 times, injected the medicine (2½ *grs. morphia*,) into a subcutaneous vein. This was followed by very great prostration, from which he recovered. For myself, I have never seen any symptom more unpleasant than that of occasional nausea, vomiting, vertigo, and itching of the skin and nose. All of these, except the latter, are quickly relieved by bromide potassium, given by the stomach, or injection.

Morphia is, perhaps, more fruitful of these ill effects than any other remedy, it having a physiological tendency to produce them, and being used more frequently than all other remedies combined.

Drs. Southey and Duckworth† each relate a fatal result. The former from 1-6 grain of Sulph. Morphia, in a case where the heart was seriously diseased. Dr. Hanfield Jones‡ relates in brief, three cases in which the remedy was followed by serious fainting. In these he thought there was serious disease of the valves or muscular tissues of the heart. Gallaher§ mentions a case in his experience, where severe prostration was produced, lasting twenty-four hours. In nearly all of these cases a vein seems to have been entered.

PHYSIOLOGY.

Remedies admitted subcutaneously have quite the same physiological effects as when given by the mouth. Their effects, however, are *more powerful* in the same *sized doses in the former than in the latter*, and in some instances differ in kind.

A scientific‖ committee appointed by the Clinical Society of London, to report on the physiological and therapeutical effects of remedies administered by this method, gave it as their opinion,

* Am. Jour. Med. Science, June, 1866, p. 240.
† London Lancet for March, 1871, pp. 161-2.
‡ Ibid.
§ N. Y. Med. Jour. May, 1871, p. 537.
‖ American Jour. Med. Science, Oct. 1867, p. 537.

that no difference has been observed in the effects of a remedy *thus given*, and by their *introduction into the stomach, except greater rapidity, certainty and intensity of effect, and requiring a less amount to affect the system than when given by the stomach.* There were, however, some exceptions to this rule. When quinia was injected into the cellular tissue, considerable elevation of temperature was observed. This symptom being slight or inappreciable when the drug was taken (in the same quantity) by the mouth or rectum. "A solution of podophyllin injected under the skin gave rise to free diuresis, a symptom which was characteristic of this method of administering the drug."

I have occasionally noticed nausea, and in nearly every case some degree of constipation produced by morphia. This latter is probably caused by the sedative action of the drug on the nervous system, as it would be impossible for it to have any astringent power over the mucous lining of the alimentary canal, when given hypodermically. There are, however, many statements to be found from good authority, to the contrary of this opinion.

THERAPY.

Remedies introduced into the system by the stomach, are often affected by the condition of that organ, or those organs annexed to it, as by inflammation, congestion, repletion of the veins, ingesta and character of the gastric juice. The condition of the liver, spleen and pancreas also produce some effect upon the action of the drug. The same may be said of the condition of the mucous membrane of the alimentary tube beyond the stomach. These conditions may be such as to prevent the absorption of a remedy, or to so far alter its character by chemical action, as to entirely change its therapeutic action on the system. I have many times found the stomach in such a morbid state as to fail to absorb either *morphia or opium.* The same may be said of other drugs. Besides, the use of remedies of the narcotic class may so far depress the nerves of the stomach, as to greatly limit the rapidity or extent of absorption, thus limiting the power of the remedy, or rendering its absorption so slow, as to quite prevent any noticeable effect. On* the other hand, when a medicine suitable for this purpose is thrown under the skin, its physiological and therapeutical effects

* Bartholow, p. 29.

are produced in the fullest degree, and in the most characteristic form. Bartholow says: "It follows then, that the therapeutical powers of a drug must not only differ in degree, but also in kind, according as it is given by the stomach, or injected under the skin. The subcutaneous use of certain drugs has developed very valuable therapeutical properties, which the stomachic administration had not even suggested. This is demonstrated by the effects of podophyllin,* and other drugs given *subcutaneously*. The *advantages* of this method have been treated of before. (See *ante.*) But I shall again ask attention to one point, the seventh in the list, viz., The facility of affecting the system in cases where from a morbid condition of the stomach or rectum, or from the power of absorption being checked by severe shock from injury or very *extreme* pain, the remedy fails to act, when given by the usual method. We have all seen such cases. I will relate two in brief, from among others that might be added.

I was called hastily one morning to see a gentleman who was suffering from an extreme attack of cholera morbus. Not having any syringe, I used autacids, opium, morphia, hot drinks, stimulating counter-irritants, heat, etc. Being obliged to leave to see others, these were ordered to be continued till relief was afforded. Two hours later a messenger announced that the man was no better, and that he was sinking rapidly, and would die if not relieved. I assured him that the man should be relieved in a few minutes. On reaching the house I found the man cramping from head to foot, pain excruciating, could perceive no pulse at the wrist, and the extremities were cold, surface bathed in a profuse cold sweat. I immediately injected a half grain of morphia sulph. In ten minutes the effects of relief were very apparent, in twenty minutes the man was easy and asleep. The vomiting and purging immediately ceased. This case, in the times of epidemic cholera, would unhesitatingly have been pronounced an instance of that fearful disease.

Case 2.—I was called last summer to see a lady, who was suffering from very extreme ovarian neuralgia. She was not one who complained for nothing. I think she was in as much

* Of 30 or more injections of podophyllin which were administered, only one produced any morbid diuretic effect, and that was, probably, a mere coincident.

agony of pain as any one I ever saw. I used opium and quinine largely; then morphia, chloroform, heat, stimulants and counter-irritants, for three hours, without the least appreciable effects. Prostration seemed to be approaching. I sent for the hypodermic syringe, and gave 15 M.'s Magendie's Solution Morphia. In 15 minutes she was much better, but still suffering. I then gave 10 M.'s more, and in five minutes she was quite easy and sleeping. I should have stated that morphia was administered per rectum to the extent of one grain, but no effect seemed to be derived from it. Fearing narcotic poisoning from the large quantity of opium in the *stomach*, I gave an emetic of zinci sulphas, and a very large injection of warm water, per rectum, which latter moved the bowels freely, and the former producing free emesis. As I expected, the opium quite unchanged, mixed with an abundance of glairy mucus, was thrown off in the act of vomiting. This lady was not an opium eater.

Other cases could be named, but it is needless to do so; these quite representing the very great advantages of the hypodermic method. I seldom go about now without my hypodermic instrument with me, having as I believe lost one case at quite a distance from home, for want of it.

The committee appointed by the Clinical Society of London, state, "That* no difference has been observed in the effects of a drug subcutaneously injected, whether it be introduced at a distance or near to the part affected." Others, high in authority, express the same opinion. From this view it may seem absurd for one occupying a position as humble as I do, to dissent. But in a certain class of cases where the pain has been *long* and *immovably seated in one location*, *the remedy locally applied is certainly more effectual* than when administered at some distant part. Drs. Ruppaner, of New York; Eulenberg, of Berlin; Behier and Lorent, of France; Gallaher, of Pittsburg, and especially, Wood, of Edinburg, maintain that localization *is often followed by better and more permanent relief than when injected at a distance.* Eulenberg states that in a case† of double rheumatic sciatica, observed by him, *complete relief* of pain, for a space of from two to three

* Am. Jour. Med. Science, Oct., 1867, p. 531.

† American Journal Med. Science, April, 1866, p. 432.

days, followed each injection *upon the side upon which the injection was made.* While upon the other side, the pain *immediately returned*, upon the subsidence of the effect of the narcotic upon the nervous centres.

The reasons for localization are: 1st. The injection influences the nerves of the part injected, producing a partial local anæsthetic effect of considerable permanence, sometimes lasting for several days. 2d. The local shock attending the operation tends to break up the established habit of local morbid influence. 3d. In addition to the local influence, the part receives also its share of the systemic effects, thus giving the one locality a double effect, and hence more power over the local disease. I have already cited two cases in which the remedy, applied locally, had a most happy effect, while I had no reason to expect permanent good from it if injected at a distance, (see *ante*) (two cases head pain.)

The diseases in which this remedy has been beneficially used are numerous. Among them we may especially place those severely painful and spasmodic, as well as many that are of cerebral origin, as mania, melancholia, delirium tremens, etc. And of the digestive organs, as sea sickness, excessive vomiting, colic, intussusception, etc. These should be treated under the head of Special Therapeutics, but space and time will not allow more than a brief notice of a few diseases, after which I shall describe the instrument, manner of using, and formulæ for some of the leading remedies used by this method, then close this already lengthy article. I will give a very few of the many cases in which I have used the hypodermic method of treatment.

Case 1.—On the 6th day of August, 1869, I was called to see Mr. Mc., who was suffering from a severe attack of pleurodynia. I injected, over the pain, six minims Magendie's Solution. In five minutes he was relieved without a bad symptom, though he could not move or even breathe without severe pain.

Case 2.—Was called on the night of Sept. 1st, 1869, to see Mrs. T., suffering severely from cholera morbus. Everything administered, even water, was immediately rejected. I administered one-sixth of a grain of morphia, under the skin. In ten minutes the pain and vomiting all ceased, and she was cured without a bad sequence.

Case 3.—Mr. M. who frequently had attacks of colic, as well

also as his wife, always requests its use, in preference to waiting for the old slow plan of treatment. It has generally relieved them in from eight to ten minutes.

Case 4.—Mrs. R. was awakened one night by a terrible pain in the shoulder, caused by muscular spasm; she could not move without great pain, and her suffering seemed very great, even while lying still. I sent one and one-half grains of opium, which she took, but without relief. I *saw* her some hours later, still suffering, and injected over the deltoid muscle ¼ gr. sulph. morphia. After 10 minutes she had no more pain.

Case 5.—Mr. E., the subject of a knot of varicose veins on his hip, applied for relief from this ugly deformity. I injected the veins as full as possible of a saturated solution of ferri persulph. This enlarged the veins and rendered the little tumor quite sore for a few days, after which the difficulty disappeared.

Case 6.—Mr. D. was taken with a most agonizing pain over the region of the left kidney, and down the course of the ureters. He was immediately prostrated; extremities cold. Pulse very feeble; respiration labored. It was just such a case* as one would naturally expect opium to be hours in relieving, if given by the stomach, even in conjunction with other remedies. I at once injected 15 minims of Magendie's Sol. In 15 minutes the pain was very much abated, but still severe. I gave 10 minims more, and in 10 minutes he was perfectly easy, but greatly prostrated from the effects of the pain. The morphia produced no ill effects.

These cases could be multiplied, but it is needless. I will turn to a few cases given by others.

Dr. W. Haining reports a case of tetanus cured by injections of Calabar bean.† Dr. Fraser reports the cure of nine cases out of eleven‡ by the same remedy, but he combined both methods of administration.

Strychnia has been successfully used to relieve paralysis, and as a tonic, after it has failed to produce the desired effect by the stomach. Hunter cured§ one case of six years', and another of

* Probably a case of the passage of nephritic calculi.

† London Lancet, March, 1870.

‡ N. Y. Jour. Med., May, 1871, p. 538.

§ Bartholow Hyp. Med., p. 104.

two and one-half years' standing; another case, time of duration not stated. He and Echeveria have treated all forms of paralysis by this method successfully. The latter recommends great care in discriminating the proper cases for its use in this disease. It should not be used by this method in cases where it is contra-indicated by the stomach. Morphia, and its salts, are the most important of the whole list for this method. The sulphate, being the most soluble, is the one commonly used; the ordinary dose is from one-eighth to one-half grain. The dose should be small at first, until we know how each case will bear it. Doses of larger size may be given in extreme cases of pain. The morphia habit may be established by this method, the same as by the stomach. Dr. Buzzard* reported a case to the "Clinical Society of London," of a lady who had frequently used thirty-three grains of morphia in twenty-four hours, by subcutaneous injection. He injected fifteen grains at one dose without bad effect. First in the list for relief by morphia stands neuralgia, in all its forms and locations. It is often cured by a few injections, after resisting other treatment for months. In delirium tremens it is highly extolled by nearly every authority. The danger of narcotic poisoning is less, for the reason that each portion is immediately taken up, and its effects produced to procure sleep. In hysteria it is one of our most reliable medicines. I have used it with the happiest effects. Hunter, Lauder, Frovmiller and Lorent speak well of it. Bartholow says:† "In my own experience, no remedy has acted so promptly and satisfactorily in terminating a hysterical paroxysm as this." In puerperal mania it is highly commended, and those who have used it consider it safer and far superior to chloroform. In all diseases having their origin in morbid reflex-excitability it is perhaps the best remedy at our command. In tetanus, it is rapidly coming into use, and should certainly be tried in every case where stomachic administration is difficult. In local or general muscular cramp, it cannot be too highly estimated. In spasmodic asthma, there is perhaps no means we can command that will compare with the subcutaneous administration of morphia or atropia, or the two combined, in *rapid* and *complete* relief. I have

* London Lancet, March, 1871, p. 161.

† Bartholow, p. 49.

seen almost perfect relief follow in five minutes. Atropia is probably the best of the two remedies, but *the two combined is better still.* In hiccough, angina pectoris, pleuritis, etc., it is a certain and valuable remedy. In *cholera*, Bartholow says: "The most instantaneous and striking relief is afforded by the hypodermic injection of morphia." One of the most important effects is in the relief of congestive chills. Dr. Jos. E. Garrison,* Asst. Surg. U. S. A., "reports five cases in which morphia, injected subcutaneously, absolutely cut the paroxysm in a *few minutes*," and the subjects were able to sit up and walk about in a remarkably short space of time. One, though so far depressed as not to know of his presence, so far recovered *before he could put up three* five grain powders of quinia, that she asked to get out of bed, and did so. Morphia, by this method, is highly extolled for the relief of pain in cancer, and Bartholow asserts that "in scirrhus of any portion of the digestive tract, especially of the stomach, no palliative is comparable to the hypodermic injection of morphia."†

The physiological antagonism between morphia and atropia is now pretty well established. Poisoning by the one may be readily antagonized or antidoted by the other. A very interesting array of facts and cases may be found in the Medical and Surgical Reporter, April 22, 1871, p. 334, by Dr. John A. Little, of Delaware, Ohio, in which he gives his own experiences, and the authority of standard teachers in support of this fact. The report will repay perusal. The therapeutic applications of atropia are as important as those of morphia, but the number of diseases in which it has, or may be used, are not so great. In asthma, it is very highly extolled, but I can only give it a passing notice. *Atropia, combined with morphia, will very often obviate the ill effects of the latter, without destroying its anodyne effect, while at the same time it really increases the hypnotic power of the morphia.*

The uses of quinia, by this method, are very valuable and effectual. Dr. Moore, of Bombay Medical service, states‡ that four or five grains of quinia, injected beneath the integument, are

* Amer. Jour. Med. Science, April, 1870, p. 571.

† Bartholow, p 64.

‡ Bartholow, p. 131.

equal to five or six times that amount taken into the stomach. Not only are its effects immediate, but greater and more permanent, being less liable to be followed by a relapse. Bartholow states that from three to five grains are sufficient "to cure an ordinary intermittent." In* those deadly malarial attacks, known as "puniceous," is the efficacy of this treatment most conspicuous.

We all know the importance in these cases of bringing the patient rapidly under the influence of the remedy, hence the great advantage of this over other methods of treatment. It is my opinion that a combination of morphia and quinine is more appropriate, and would be more effectual than either one alone.

Dr. R. B. Maurey, of Port Gibson, Miss., gives a report of twenty-five cases of the various forms of malarious fevers treated with quinia by the hypodermic method. He states that "in most of the cases six grains was the entire quantity of quinia used during an intermission or remission; in the severer cases eight grains was the quantity used. Cinchonism was fully produced in from forty to sixty minutes." He thinks that life can often be saved by this method in congestive intermittents, when it could not be done by the stomachic method, for the reason that absorption by the stomach is too slow in cases where the chill is near or already at hand, or that it may be so irritable as not to retain the remedy long enough to affect the system.

Many other remedies appropriate for this method have been very successfully used, such as conia, caffein, ergotin, mercury, arsenic, physostigma, etc. Of these I cannot speak for want of space, further than to call attention to the latter as an excellent remedy in tetanus, for which it is considered by many our best remedy. *But especially would I ask attention to the fact of its being the antidote for strychnia poisoning.* It is† the true physiological antagonist of strychnia. While strychnia exalts, physostigma destroys the reflex faculty of the cord. The rapidity, certainty and intensity of effect by this method render it valuable in both of these difficulties, but caution should be observed not to use too large doses, one-third of a grain of the extract being sufficient to commence with.

Different instruments are used for this method, but all are quite

* Am. Jour. Med. Sci. Oct. 1866, pp. 671–3.

† Bartholow, p. 124.

similar in construction. They are made of glass, gutta percha and silver. The glass instruments are graduated on the barrel—the others are graduated on the piston-rod—thus enabling us to know just how much of any solution we have in the syringe, by knowing the strength of which we can give precisely the dose desired. If air is drawn into the syringe it is inserted and the piston pushed in till it is all excluded. The syringe charged and ready for use, the integument is pinched up, between the thumb and finger, the point of the needle placed against the skin at the place where it is designed to enter. It is then passed through the skin by a *quick thrust*, after which it is carried about an inch into the cellular tissue by a slow movement, then slightly withdrawn, and skin raised, (see *ante*), always being very careful to avoid any vessel or nerve, especially a vein. The fluid is then discharged into the cellular tissue *very slowly*, *drop by drop*, till the requisite amount is discharged. I always deem it better to have a little more in the syringe than is injected. This makes it doubly sure against the introduction of air. Some authorities recommend that the tube be left a few minutes, so that if a vein has been entered, or any ill effects are likely to be produced, the barrel can be again screwed on to the tube and much of the fluid withdrawn, thus preventing the absorption of the whole portion administered.

The best situation for injections are the outer surface of the arm, the deltoid surfaces, the abdomen, back, chest, and outer face of the arms and thigh.

The effects are produced with about equal rapidity from each of these sites. Bony prominences and vascular sections should be carefully avoided.

It is better not to inject an inflamed surface, nor to inject *twice precisely in the same place*, as abscess or pustule might result from a neglect of this precaution.

In cases of long seated, obstinate pain, it is better, in my opinion, ceteris paribus, to inject at or very near the painful point, for reasons before stated. (See *ante*).

SOLUTIONS.

In this method much depends on the purity of the medicines, and the character of the solutions used. *All medicines used*

should be in a perfect state of solution, as particles of undissolved medicine, when introduced into the subcutaneous *cellular tissue*, are not readily absorbed, and are liable to act like a foreign substance, producing inflammation and abscess; besides, the foreign substances block np the cavity of the needle. It is always better to filter carefully the solutions, thus removing all dirt and foreign matter or undissolved particles of medicine.

The solutions should be as nearly *neutral* as possible, and *not too greatly concentrated nor acrid.* Any solution capable of coagulating the circulating fluid, or any of its constituents, should be avoided, except in NEVI and VARIX.

Pure distilled water is best for preparing solutions. *This* can be injected in any reasonable quantity without harm. It is better to court quantity to a reasonable extent, than too great concentration, for it is not so much the *quantity* as the *strength* that causes ill effects. Solutions, especially of the alkaloids, should not be too long kept, for the reason that PENICILLI* develop in them at the expense of the alkaloid, thus rendering the solutions of uncertain strength, and not so safe for use.

FORMULA.

Probably the best formula for morphia is Magendie's† Solution, which consists of: ℞ Morphia Sulph. grs. xvi; Aqua Destill., ʒ i; M. Of this, 30 minims equals *one grain*, the usual dose being 5 to 8 minims. For morphia and atropia combined, the solution must vary according to the desired purpose. As one *grain* of morphia *is equal in toxic power to* 1-24 *grain atropia*, from this we can gauge the dose. A very good formula is:‡ ℞ Morphia Sulph. grs. xvi; Atropia Sulph. gr. i; Aqua Destill., ʒ i; M, and filter, 5 minims the average dose. More morphia and less atropia can be used, or *vice versa*, as we desire to affect the patient. *The latter increases the hypnotic effect of the morphia.*

For atropia a very good formula is: ℞ Atropia Sulph. grs. ss; Aqua Destill., ʒ iii; M. Of this, 4 minims equal 1-90 of a grain. The strength *can* be doubled, but it is better not to do so.

Of strychnia a proper solution is: ℞ Strychnia Sulph. grs. ii;

* Bartholow, p. 20.

† Bartholow claims it as his own; who is correct?

‡ Bartholow, p. 89.

Aqua Dest. ʒ vi; M. Of this, 5 minims equal 1-36 of a grain, probably the average dose by this method, but it would be better to use only 1-50 of a grain at first.

Of quinia sulph. a proper solution is: ℞ Quinia Sulph. grs. xx; Acid Sulph. Arom. gtt. xx; Aqua Dest. ʒ iii; M, and filter. Of this, 9 minims equal 1 grain.

It is to be regretted that quinia is not readily soluble, without the aid of considerable acid; but by careful management ill effects can be avoided. I have injected two grains with good effect, and without bad after consequences. Of solutions for other remedies, I have not space to speak; however, I think it proper to add that this method, though possessing a very wide range of application in many and various diseases, should not so far be used as to exclude the use of remedies by the usual method in most diseases, where they are of long continuance. But as it is yet in its infancy, we are hardly able to predict whether or not in course of time it will take largely the place of stomachic administration. A report is already in print of its being very highly successful, by the injection of *calomel* in constitutional syphilis.* But if it could only be used for the relief of very severe pain, and in severely spasmodic diseases, it should be understood and used by every practitioner of medicine and surgery.

Since writing this article I have received an account from Dr. Thomas E. Pickett, of Maysville, Ky., of a man who by mistake received and took at once eight grains of sulph. morphia. Its poisonous effects were very soon manifested. All the usual means were immediately resorted to for his relief, viz.: flagellation, forced exercise, counter-irritants, cold douche, titillation, slapping the soles, galvanism, etc. The jaws were closed by tonic spasm of the muscles, preventing all attempts at relief by evacuating the stomach, or introducing any remedy whatever into it. All these means failed, and the patient's condition became desperate and quite hopeless. Respirations, 3; pulse, 140; extremities cold, etc. Atropia was now hypodermically used, at the rate of 1-24 grain every thirty minutes. After the fourth dose, improvement occurred, relaxation of the muscles allowed the jaws to open, which was taken advantage of for the use of stimulants by the stomach pump. The patient made a good recovery. The dose

* Lancet and Observer, May, 1871, from Lancet—Med. Gazette.

had been swallowed five hours or more before the atropia was used. The dose of the latter as an antidote in this case was remarkably small, yet its effects seem to have been all that was desirable. Larger doses would have afforded more prompt relief.

ARTICLE VIII.—*Clinical Lectures on Diseases of the Ear.* By Dr. E. L. HOLMES, Prof. Ophthalmology and Otology, Rush Med. College, Surgeon to Chicago Charitable Eye and Ear Infirmary.

MECHANISM OF HEARING.

GENTLEMEN—I propose to present for your examination and study a series of cases, which will illustrate the most common pathological changes in the ear. From these cases, I trust you will learn the methods of investigating aural diseases, comprehend the manner in which they may result in the impairment of hearing, and understand the principles on which their treatment is based.

If you will follow me but for a few minutes in the study of the important points in the anatomy and physiology of the ear, and of the principal phenomena of sound, I think you will admit that the obscurity regarding the nature and diagnosis of aural disease has been greatly exaggerated. I think, also, you will be convinced that while the treatment of many of these diseases is still very unsatisfactory, the treatment of many of the diseases is attended with the most gratifying results.

I shall not burden your attention with the minute anatomy of the ear. Leaving this for your private study of our best works, I shall point out the few landmarks which, if carefully fixed in the memory, will render the rest of the field easily mastered.

Disregarding for the present the external ear, glance for a moment through this silver conical tube into the ear. By the aid of a good light falling directly through the tube, or better, by means of light thrown by this concave reflector, you are able to look upon the walls of the membrana tympani, and the walls of

the external meatus. This membrane — parchment-like — is stretched across the external meatus, separating this from the middle ear. Were it not for this membrane, the middle ear would be simply a continuation of the external meatus.

The middle ear, or tympanum, is a small cavity in the bone, lined with delicate mucous membrane, which also covers the inside of the membrana tympani. This cavity has at its *upper portion* two openings, one leading forward to the throat, the other (one or more) backward to the mastoid cells.

If you examine a recent preparation of the temporal bone, from which the membrana tympani has been removed, you will observe that you can look upon the inner wall of the middle ear, and can pass the point of a probe through the external meatus upon the little elevation called the promontory. In this inner wall, just posteriorly to the promontory, are two small apertures —the *upper* one, oval—the foramen ovale; the lower one, round —the foramen rotundum. Study and fix in your mind all facts regarding these two minute openings, for they play a most important part in the mechanism of hearing.

In the foramen ovale, is fitted the base of the little bone called the stapes or stirrup, so called from its very great resemblance to the stirrup of a saddle. If the portion corresponding to the part of the stirrup on which the foot rests, were circular, this bone would resemble the "box" or piston of the common house pump, as often constructed. In fact, the stapes performs almost precisely the same function in the ear as the piston in the force pump or syringe. Its oval portion, or base, rests quite loosely in the foramen ovale, a very delicate membrane, passing from the edges of the foramen to the base of the stapes, and serving as packing, prevents the passage of water around it, without interfering with its delicate motions as a piston.

The other two minute bones, the anvil and hammer—incus and malleus—serve the same relative purpose as the shaft of a piston. The incus is attached to the stapes by a very delicate joint, and also to the malleus, which last is united, by means of its long handle, to the inside of the membrana tympani. Pressure on the outside of the membrana tympani is consequently conveyed through these minute bones to the stapes, which is moved to a greater or less extent in the foramen ovale, precisely as pressure on the han-

dle of a syringe is communicated through it to the piston, causing it to move in the cylinder.

We have spoken of *two* openings on the inner side of the cavity of the tympani, as being of the greatest importance in this wonderful mechanism. The foramen ovale has just been described as a minute and short cylinder in which plays the stapes as a piston. Before explaining the function of the other, or foramen rotundum, we must show what lies on the other side of the foramen ovale. On examining a prepared specimen, you find that this opening leads into a very irregular cavity called the labyrinth, the portion of this cavity nearest the stapes being termed the vestibule. There are two minute curved channels, each end of which opens into the vestibule; another minute curved channel passes from the vestibule into one of the other canals, consequently, these three little canals, called the semi-circular canals, have five openings in the vestibule. Connected with the vestibule is a very wonderful little organ called the cochlea. You will comprehend the structure of the cochlea by considering the following illustration. Imagine a small leaden tube, closed at one end—further, imagine this tube divided into two lateral halves by a very thin partition passing from the open end *almost to the closed end* of the tube. You can thus understand how water turned into one lateral half would pass down to the bottom and then ascend in the other lateral half. Now imagine this little tube curled two and a half times upon itself in the form of a spiral, and you have at once an idea of the form of the cochlea. This minute spiral in the ear is so placed that one of its lateral halves opens into the vestibule, the other into the *foramen rotundum*, over which is spread a delicate membrane—the membrana tympani secundaria—separating the middle ear from the cochlear portion of the labyrinth.

The next important point for your consideration is the fact that the labyrinth is filled with a limpid fluid, which lies in contact with the fibers of the auditory nerve. You are well aware that water is practically incompressible. If the fluid in the labyrinth was confined in a cavity wholly surrounded with solid bone, the stapes could have no motion in either direction, on account of the incompressible fluid on one side and the weight of the atmosphere on the other. If you fill a large syringe with water, and

place the finger tightly over the orifice from which the stream flows, you will have an illustration of this principle, when you attempt to move the piston in either direction.

In the ear, however, pressure on the membrana tympani, as we have shown, causes the stapes to move inward in the foramen ovale—the fluid is forced through one side of the cochlea, and returns in the same direction through the other half to the foramen rotundum, and causes a slight convexity of its membrane outward. When the stapes is withdrawn, the atmosphere presses on the membrane of the foramen rotundum, and forces the fluid from the cochlea into the vestibule. Hence, one of the chief functions of the foramen rotundum and its membrane is to render vibrations of the stapes possible.

These are, I am well aware, only a very few cardinal points in aural science. But if you will study them carefully, and fix them in your memory, you will, as I said in the beginning, comprehend the more readily the minute anatomy of the ear as you find it in our best text books.

Those of you who are desirous of pursuing the study of aural disease, I must refer to the work of Von Troeltsch, translated by Prof. Roosa, and to the Archives of Ophthalmology and Otology, edited by Profs. Knapp and Moss.

In our next lecture we will consider the mechanism I have described, in its more intimate relation with the phenomena of sound.

The Influence of Abnormal Milk on Nutrition.

Mr. C. Meymott Tidy (*Lancet*), was recently consulted by a lady, whose infant 6 months old, was, to use her own words, "becoming miserably smaller day by day." Undoubted signs of incipient pulmonary tuberculosis were found in the mother, and, on analyzing her milk, it was found markedly deficient in fatty matter. At Mr. Tidy's suggestion, the milk was drawn off at stated times, and, mixed with a stated quantity of mutton suet, was fed to the child from a bottle. The child soon began to thrive astonishingly.

Editor's Book Table.

[Note. — All works reviewed in the columns of the Chicago Medical Journal may be found in the extensive stock of W. B. Keen & Cooke, whose catalogue of Medical Books will be sent to any address upon request.]

A Practical Treatise on the Diseases of Infancy and Childhood. By Thomas H. Tanner, M.D., F.L.S. Third American Edition. From the last London Edition. Revised and Enlarged, by Alfred Meadows, M.D., London. Philadelphia: Lindsay & Blakiston. 1871.

The author of the two preceding editions of this popular work, being unable from a press of business engagements to superintend the revision of this third, has confided the task to an able colleague, and we have the result of his learning and energy in the shape of one of the best books ever written on the diseases of children.

The division into four parts, strikes us as being particularly happy; affording a much more systematic arrangement, and a wider field for the intelligent discussion and understanding of this most difficult and comprehensive branch of medicine.

In the *first* part, he gives us as the first step, a clear statement of the anatomical and physiological peculiarities of childhood, to a thorough knowledge of the various pathological conditions so different as found in the adult, and then proceeds to discuss the hygienic management, embracing the dietary, clothing, exercise, sleep, moral and intellectual training, from the first moment of life to the dawning of maturity. The chapter on dentition should be carefully studied, as affording a solution of the various processes attending the eruption of the deciduous and permanent teeth, and the disorders consequent thereon; and next, the pathology of infancy and childhood, with the statistics of mortality. It cannot be too strongly impressed upon the minds of medical men, the importance of a systematic study, and a proper interpretation of the symptomatology of these diseases, from the expression of the countenance, the gestures and attitudes, the examination of every organ, to a chemical analysis of the urine, if necessary; and it will be only by years of close and accurate observation, that we can hope to be successful in combating the various ailments brought to our observation.

It seems almost superfluous to state that, from the entrance into the sick room, and the first step in our examination,—the taking of the pulse,—to the last,—the inspection of the throat, mouth and gums, (the grievous part of the medical visit, as Dr. West terms it), the most untiring patience, and unvarying good humor, with quiet demeanor and gentle voice, are absolutely necessary to succeed at all, and to those testy and choleric individuals, who cannot endure the wail of an infant, or the fractious yelps of a spoiled child, without a hankering to apply their palms *a posteriori*, or throw them out of the window, we would recommend that their energies be devoted to other branches, for as our author says, "it is by no means easy to understand a helpless infant; his only language is a language of signs, which nothing but habit, experience and patience will enable us to interpret."

The last chapter of this part is devoted to infantile therapeutics, and is deserving of close attention. The proper manner of using and combining, the physiological action of the various remedies, and the conditions calling for their employment, are succinctly set forth, and we the more readily endorse his views, because he leans to the side of conservatism, and does not believe that we possess any of those specific receipts, which so many of our physicians carry in their heads, or if short of memory, in their pocket-books. He believes, and justly too, that many diseases may be avoided by attention to food, cleanliness, and the ordinary rules of hygiene, and does not believe that indiscriminate and hap-hazard medication is at all called for; yet, at the same time, admits the necessity, under certain circumstances, of heroic treatment, inasmuch as acute and destructive disorders run a much more rapid course, and terminate in dissolution more certainly than in the adult. We think this chapter one of the most interesting and instructive in the whole book, and therefore commend it to all, especially the young practitioner.

In the *second* division, he treats of general diseases,—the varieties of fevers, and diathetic disorders. His classification of fevers expresses a truer pathology than any we have seen; the *continued* fevers, typhoid and typhus; the *intermittent* fevers; and the *eruptive* fevers, disregarding entirely those symptomatic, or irritative pyrexial manifestations, arising from inflammations, incidental to other disorders, and merely considering those in

which the group of symptoms constitute, what we call fever,—the very essence of the disease. He tells us of *four* diatheses, hereditary or acquired: the scrofulous; the tubercular; the rachitic; and the syphilitic. They possess some few features in common, but are entirely distinctive, and in many respects antagonistic. For instance, the scrofulous is entirely distinct from the tubercular, having nothing in common, if we except debility, or depraved health, and never occurring in the same subject. The pathological tendencies of the former are exhibited by inflammation of low type, with marked disposition to suppuration, and this with special reference to mucous surfaces, pulmonary and gastro-intestinal; whereas, in the tubercular, the tendency is towards serous membranes, with effusion. In the former besides, glandular enlargements, in the latter tuberculous deposits, and they are as essentially different in many other particulars, as small-pox from scarlet fever, or measles. This runs counter to the opinion of many practitioners, whom we know personally, and who always consider the tuberculous as one of the phases of the scrofulous constitution, but at this present stage of our pathology, they are recognized as possessing opposite and diverse characteristics.

The rachitic is also a disease of mal-nutrition, and affects principally, but by no means entirely, the osseous structures, and sometimes, though rarely, may be engrafted on the strumous.

The syphilitic diathesis of course may be found combined with any of the preceding, and is a disease *sui generis*, either hereditary or acquired. It can be transmitted from either parent, without doubt, and is capable of spreading infection likewise.

The influence which these diatheses have upon the various diseases of younger life, is of course incalculable; the characters which they impress; the pathological tendencies they exhibit; and the therapeutical indications they demand, can only be estimated by their bearings upon present and future generations; and especially is this the case, when we know that such dreadful scourges may be inflicted upon perfectly sound and healthy children, by deprivation from light, heat, nourishing food, and lastly, —*sub rosâ* be it said,—by unsound medication, creating debility and prostration, sapping the very springs of life, by such remedies as antimony, calomel, blood-letting, etc., pushed *usque ad mortem*.

Part *third* opens with the nervous diseases, a special class, more obscure, and more terrible in their manifestations than any other in the category, besides presenting a high rate of mortality. On account of the rapid development of the brain, and the activity of the circulation in early childhood, almost every disease is ushered in, or accompanied by decided, and sometimes alarming nervous phenomena, and it becomes necessary to understand the symptoms of nervous disorders, functional or organic, if we hope for success in the treatment of children. In the chapter on respira-

tory diseases, we find an excellent division, beginning with the nasal passages, throat, etc.; next, larynx and bronchial tubes; then, serous surfaces; and lastly, lung tissue itself. The mortality, absolutely speaking, is greater in these disorders of the respiratory system, than those of the nervous, but relatively, it is not so, from their greater frequency, and probably there is no class of diseases more commonly associated with severe disturbance of the nervous centres than those discussed above.

Of those sections, treating of the circulatory and urinary systems, we have but little to say, except that the arrangement is unexceptionable, the pathology sound, and up to the most modern investigations. And the treatment, as in that of the pulmonary ailments, essentially scientific, sustaining, and expectant, never rash, lowering nor heroic.

The classification of skin diseases in chapter fourth, is the work of Dr. Tilbury Fox, one of the most learned and successful dermatologists in England. It is much simplified, and divested of many technical terms, for a better understanding by the younger practitioner, and presents the treatment and diagnosis in a clear and unmistakable light. As these cutaneous diseases are very rife among children, and as a rule are readily curable, provided their pathology be fairly understood, and their causation too, we hope every one will give this section an especial consideration. The next two chapters treat of diseases of the eye and ear, and like the one on those of the skin, are well placed before the reader, but they present simply the outlines of the various diseases which afflict these important organs, and can only be considered as guides to a proper study of the monographs. Without a thorough knowledge, and extensive experience, if severely visited, we had better send them to those who make a specialty of such branches.

In part *fourth*, and the last, the many accidents, injuries and deformities at and after birth are brought before us, and though this properly belongs to the domain of surgery, and in some few particulars to midwifery, yet we must look upon it as a very useful and handsome supplement to complete this instructive work.

In the appendix, we encounter a large collection of formulæ and receipts for making the necessary articles of diet, etc., to be used in the sick room, and also a large number of scientific prescriptions to meet the morbid conditions of the many diseases of children. We should hardly finish a conscientious review of this book, did we not offer a caution, especially to the new beginner, that in looking over these combinations, he should do so merely with the view of learning how remedies are combined, those which are compatible, their doses, and the indications calling for such uses: but the moment he shall attempt to commit them to memory, he had better close the book at once. No especial remedy or combination will suit persons of different tempera-

ments, and under the infinitely varying conditions of the human system, and no stereotyped prescriptions will be dealt out to Tom, Dick and Harry, as was the treacle and sulphur to the squalid children of "Dotheboy's Hall," by any scientific physician, who reasons out the requirements of each case, and then applies his knowledge. Any other way is empirical, and if you once begin thus, you will necessarily degenerate, for the road to true knowledge is no golden one, and the "imp of idleness" ever stands at our elbow to draw us from the path of duty. Go into any drug store, and study his prescriptions, if you are properly instructed, you will read your man at once, for "ye shall be known by your works."

To finish, we endorse this book heartily; it is equal to West, and Barthez, and Rilliet; embodies a vast amount of information; is very clear and intelligible in its descriptions; and will certainly meet the requirements of all desiring to make study of the diseases of infancy and childhood.

"VOLTA REEKE."

BOOKS RECEIVED.

Treatise on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., Prof. of Diseases of the Mind and Nervous System, and of Clinical Medicine in Bellevue Hospital Medical Coll., etc., etc. With Forty-five Illustrations. *Est quoddam prodire tenus, si non datur ultra.*—HOR. New York: D. Appleton & Co., 549 and 551 Broadway. 1871. Pp. 754. By S. C. Griggs & Co., Chicago.

The Eye in Health and Disease. By B. JOY JEFFRIES, A.M., M D., Fellow of the Massachusetts Medical Society, Member of the American Ophthalmological Society, Ophthalmic Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, Ophthalmic Surgeon to the Carney Hospital, Lecturer on Optical Phenomena and the Eye, at Harvard University. CONTENTS—Anatomy of the Eye. Physiology of the Eye. Old Sight and Spectacles. Near-Sightedness, or Myopia. Long-Sightedness, or Over-Sightedness—Hypermetropia. Astigmatism. Cataract in Children simulating Near-Sightedness. Cataract. Artificial Eyes—How and Why they are Worn. Squinting Eyes—Why and How they must be operated on. An Artificial Pupil—What it is, How and Why the Operation is performed. The Ophthalmoscope—What it is, and How it is used. Injuries and Diseases of the Lids and Eye—Their General Care and Treatment. Type for Testing Vision. With 30 illustrations, 8vo, cloth. Price, $1.50, mailed free, on receipt of price. Alexander Moore, Publisher & Bookseller, 2 Hamilton Place, Boston.

On the Physiological Effects of Severe and Protracted Muscular Exercise. With special reference to its Influence upon the Excretion of Nitrogen. By AUSTIN FLINT, JR M.D., Prof. Physiology in the Bellevue Hospital Med. Coll., N. Y., etc., etc. New York: D. Appleton & Company, 549 and 551 Broadway. 1871. Pp. 91.

This is a scientific account of the physiological phenomena observed during the time occupied by the celebrated pedestrian, Weston, in accomplishing the feat of walking 100 miles in twenty-one hours and thirty-nine minutes, and subsequently, in several similar prolonged muscular efforts by the same person. The general account and summing up are given by Prof. Flint in his usual careful and lucid manner.

PAMPHLETS.

A Month's Tour through the Alps of Switzerland. By PROF. JAMES D. DANA, LL.D., Yale College, etc., New Haven, Conn. Charles C. Chatfield & Co., New Haven, Conn. Pp. 11. S. C. Griggs & Co. 25c.

Convenient for reference to the traveler, as indicating the route for both the savan and the sight seer. A detail of expenses is given from New York and return.

The Detection of Criminal Abortion. By ELY VAN DE WARKER, M.D., Syracuse, N. Y. Boston: James Campbell, Publisher, 18 Tremont St., Museum Building. 1871. Pp. 16.

Editorial.

Original Communications.

Our readers will notice with pleasure the increased value and extent of this department of the JOURNAL. Indeed we have secured the assistance of a corps of co-laborers of which any journal might well be proud. Without invidious designation, we may safely say that, in the present number alone, there are individual articles worth more to the careful reader than a year's subscription to this or any other medical periodical in the country.

The variety of topics discussed is so great that we have not deemed it worth while to borrow matter from our contemporaries

We have several valuable communications on file, for which correspondents will accept thanks, and pardon us for temporary delay in appearance. Be not weary in well doing.

The Prurient Prudes—

long-haired men and short-haired women—who have taken it into their otherwise empty heads, to assume virtuous indignation at some of the expressions made use of by one of our correspondents, several months since, are confidentially advised to look over an article, published by one of our contemporaries in this city, entitled the "Social Evil." An attempt was made to have this latter article published at the municipal expense and sent to each family in the city.

Our correspondent's article was intended for physicians only, and we undertake to say, none of them were shocked. If any women read medical books or medical journals, we opine they have already lost the "wire edge" of their modesty sufficiently to endure even worse shocks.

A lady complimented Dr. Johnson, the lexicographer, on the fact that he had left out all the naughty words from his dictionary. "I perceive," said the great hater of shams, "that you have been looking for them."

Now you cream-colored man, or vinegar-visaged woman, who have taken it upon yourselves to howl over "VOLTA REEKE," do a farther service to the world by hanging yourselves respectively with a garter and a necktie.

The Gaillard-Yandell

imbroglio fills the papers of Louisville with unseemly professional squabbles. Meanwhile, we remain blissfully ignorant of the real facts in the case. Dr. Gaillard's promised *exposè* in the *Rich. and Lou. Jour.*, for June, has not yet come to hand. "In the name of the Prophet—Figs." The Presidency of the Am. Med. Association is getting to be a position fraught with as much danger from missiles of all nastiness as the old-time pillory. Let us have peace!

Intestinal Concretion.

J. P. Walker, M.D., of Mason City, Ill., favors us with a fragment of a fine specimen of a hair ball, encrusted with calculous matter, taken from the duodenum of a cow. The entire ball

was eight and three-fourths inches in circumference. Such formations are not unprecedented, but are sufficiently rare to be considered curiosities.

Radical Change.

The Harvard Univ. Med. School has adopted a course of instruction extending, like the academic curriculum, throughout the year. Three years' instruction will be given by lectures, recitations, etc., and a series of examinations has been arranged, to occur at intervals during the course of study.

The plan is essentially the one first adopted and then abandoned by the University of Michigan, twenty odd years since. Practically it furnishes medical education to rich men's sons only. The vast majority of medical students have neither time nor means to avail themselves of the conceded advantages of such a course. Meanwhile, we reiterate, more depends on the teacher than the "plan." Not even Medical Students can gather figs from thistles.

The State Medical Society.

Proceedings at the recent session were promised us by the Secretary in season for the present number of the JOURNAL, but have not yet come to hand, and we are *reluctantly* obliged to go to press without them. Fortunately they will keep.

Doctors in the United States.

The total number of physicians who paid taxes to the government, for the year ending April 30, was 49,798. Of these there were regular or allopathic, 39,070; homœopathic, 2,961; hydropathic, 123; eclectic, 2,860; miscellaneous or not classified, 4,770.

Proceedings of Societies.

GALESBURG, Ill., June 15, 1871.

The Sixth Annual Meeting of the Military Tract Medical Association was held in Masonic Hall, at Galesburg, Tuesday, June 13th.

M. Reece, of Abingdon, President, occupied the chair. Herbert Judd, of Galesburg, Secretary. Forty members were present, representing eight counties. During the morning service the following new officers were elected:

President—S. P. Breed, of Princeton. Vice President—John M. Morse, of Galesburg. Secretary and Treasurer—Herbert Judd, of Galesburg. Board of Censors—J. K. Crawford, of Monmouth; M. Reece, of Abingdon; Wm. Hamilton, of Galesburg

The address delivered by M. Reece, the retiring President, was voted to be spread upon the Record. The principal business was reports from the following standing committees:

Essayists—E. L. Phillips, of Galesburg; M. A. McClelland, of Knoxville.

Surgery. Wm. Hamilton, of Galesburg; J. N. Todd, of Kewanee, Geo. W. Crossley, Princeton.

Practice of Medicine—Hiram Vance, of Kewanee; W. L. Cuthbert, Monmouth; John P. McClanahan, Norwood.

Materia Medica and Therapeutics—J. P. Breed, of Princeton; H. Marshall, Monmouth; J. V. McCutchen, Norwood.

Obstetrics and Diseases of Women and Children—S. K. Crawford, of Monmouth; W. D. Sterling, Ionia; John W. Hensley, Yates City.

Ophthalmology—L. S. Lambert, of Galesburg.

The cases of surgery, reported by Dr. Hamilton, were interesting. One case, an amputation of the arm near the shoulder, in which one of the ligatures (silk) still remained, the operation performed fifteen weeks since. In the discussion that followed, Dr. S. M. Hamilton, of Monmouth, recommended, from his practice, the silver wire ligature, cut off short, and left in the stump. He had always had good results, and healing by the first intention.

Upon the practice of medicine considerable matter of a general character was presented.

Dr. Wm. Byrns, of New Windsor, reported a man who took 200 grs. of powd. opium; he was some distance away, and when found was completely comatose. This case was successfully treated by emetics, strong coffee, cold effusions, and active moving of the patient.

President Breed read an extensive and valuable report upon Therapeutics. The reports from the Committee on Obstetrics were of a difficult variety, with one, a fatal result. Dr. L. S. Lambert read a lengthy paper upon "Anomalies of Refraction." This paper, together with the various reports were referred to the Committee on Publication.

Under miscellaneous business, considerable interesting matter was discussed.

Drs. Vance, S. M. Hamilton, Webster, Cuthbert and Gilbert presented some new rules in regard to membership and dues, which were adopted by the Association.

Dr. A. V. F. Gilbert, of Monmouth, was appointed by the President, as Committee on Necrology.

The deaths of Dr. H. C. Graham, of New Windsor, and Dr. Geo. Gillis, of North Prairie, were reported, and referred to this committee.

The meeting was thoroughly business-like and profitable to all.

Galesburg was chosen as the place for the next meeting.

Upon the motion of Dr. Hiram Vance, the Association voted that the Secretary forward a report of this meeting to the *Chicago Medical Examiner* for publication.

Dr. H. S. Hurd, of Galesburg, moved, which was voted, that the report be also forwarded to the *Chicago Medical Journal* for publication.

The Association then adjourned to meet at Galesburg, on the second Monday in January, 1872.

HERBERT JUDD, *Sec.*

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—AUGUST, 1871.—No. 8.

Original Communications.

ARTICLE I. — *Intraocular Ossification.* By F. B. NORCOM, M.D., Chicago.

Miss McC ——; aged 23 years; nervo-sanguine temperament; of handsome, ruddy complexion, and fair physical development, showing the possession of exuberant health and sound constitution, though born, and, as we say hereabouts, "raised" in the State of Michigan (q. s.)

When about three years of age, was accidentally injured by a fragment from the stalk of a sunflower plant (*Helianthus annuus*), which was being used by her mother as a stimulant to the cutaneous surface, and to the soft, safe protuberances of a refractory brother, who, with an agility peculiar to youths under such circumstances, and with a natural disrelish for such applications, was ingeniously engaged in eluding and dodging the "raining blows," and with such benefit to himself, that, a neighboring table catching a spiteful stroke, a shower of splinters was sent in every direction, one of which perforated the cornea, and in all probability the capsule (and its lens), with partial dislocation from its normal attachments.

The entire foreign substance was removed very soon after the accident, and in a few hours violent local inflammatory action lighted up. Physicians were called in, but her fright and resistance were so urgent that, they could not draw the lids apart, and, as anæsthetics were not much in vogue at that period in the far West, nor their physiological action well understood, no further attempts were made at an examination, but the case was conducted upon general principles, and with such success that the entire cornea sloughed in three weeks, and the globe gradually emptied itself. The pain and suffering then began to abate, nor did the sound eye ever offer the slightest sympathetic disturbance.

In her seventeenth year she applied to Dr. J. B. Walker, an eminent ophthalmist of this city, for an artificial covering, though experiencing not the slightest subjective uneasiness in the stump, and this being nicely adapted, she returned home, well pleased with her improved appearance, and with full directions as to its removal and general management. This shell she wore pretty steadily for two and a half years, a period entirely too long, and with the usual result of an eroded and roughened surface, creating irritation, and finally inflammation of the palpebral conjunctiva, leading to a condition of fibro-sarcomatous granulation. As her stay in the city would be very limited, measures were immediately instituted to restrain inflammatory action and smooth down the granulations, at same time another shell inserted, and strict injunctions as to the treatment upon her return home. After this time, she paid several more visits to her surgeon, and always with the exchange of a new artificial eye, though the lid had not entirely regained its normal condition, nor become entirely free from slight bastard relapses. The first week in June she returned, having worn the last shell eighteen months, which, upon examination, was seen to have lost its glossy and smooth surface, and also with the addition to her troubles of intraocular irritation, and an enhanced crop of distended capillary loops of the upper lid, which were becoming daily more and more fibrous in character.

Her surgeon, feeling that the symptoms indicated a low grade of inflammation going on in the internal eye, and that its companion must soon take on symmetrical disease, and at the same time to facilitate his treatment of the lids, very properly advised extirpation, which was accordingly performed on the 9th of June.

The globe was reduced one-half its natural size, hard upon pressure, especially antero-posteriorly, the cornea gone, and its site occupied by a not very dense, translucent plate of fibro-plastic cicatricial tissue. It was partially opened by Dr. N. S. Barnes, who was present at the operation, and found to contain no fluid, but a hard substance occupying the hyaloid cavity. I had the honor to receive the specimen from the operating surgeon, Dr. Walker, with a request to examine it pathologically; and as it appeared to present rather a peculiar ossification of the internal structures, I have taken the liberty of making these few notes for the benefit of those fond of such investigations, especially for those studying ophthalmic surgery.

The incision was lengthened carefully, and the bulb well laid open. Size, one-half; cornea entirely disappeared, its place taken by the tissue above described; a few shrunken shreds of iris; sclerotic shriveled, but natural in structure; ciliary body gone, and ciliary ligament atrophic; choroid coat likewise, with, however, a light pigmentary layer; and the cavity occupied by an irregular osseous mass, composed of an anterior and posterior ovoid disk, joined by a delicate laminated column of bone. The posterior plate measures four lines in its transverse, and three and a half in its conjugage diameter; one line in thickness, gradually increasing to two at its junction with the column; begins at the entrance of the optic nerve, without any marked deficiency, and runs outwardly; is dense and serrated, and composed of bone structure chemically and anatomically. The column is one-half line in thickness, one in breadth, and three and a half in length, that is, from disk to disk; and is without question the coarcted and folded retina in a state of calcareous degeneration. The anterior disk is the shrunken capsule—the lens having been absorbed; concavo-convex, the convexity looking forward; fringed at its edge; fragile; cribriform; two and a half lines in its transverse, and two in its conjugate diameter; and is a perfect cretaceous transformation, effervescing with acids.

The weight of the entire body is $3\frac{1}{2}$ grains; its posterior plate was adherent to the choroid, and, upon being detached, presented a quantity of pigmentary granules upon its under surface. A microscopical examination revealed laminated bone structure, with imperfectly developed lacunæ and canaliculi, but no well-

marked traces of Haversian canals, and no evidence of vascular endowment; though it must be confessed that, in subtracting a few particles for examination, I did it sparingly, for fear of injuring and defacing the beauty of the specimen. And as it lies now before me, so unique and instructive, I cannot refrain from making some few remarks, and mayhap indulging in some wayward speculations, for all of which I trust the reader will forgive me.

Lawson, in his admirable and practical treatise on "Injuries of the Eye, Orbit, and Eyelids," tells us, "that an eye which ceases to perform its function (ceases to see), whether from injury or disease, must in the course of time undergo disorganization, that is, become atrophic and degenerated, and the only exceptions are those whose corneas have been destroyed, as, for example, in purulent ophthalmias, without implicating the internal structures. Such eyes, of course, shrink from disuse, and remain quiet, seldom troubling their owners; but in those organs where the deeper-seated tissues are engaged, processes of change and degeneration ensue, the parts within waste more rapidly than the tunics of the globe, by shrinking, can accommodate themselves to, and the relative connection of the internal structures thus becomes disturbed." "From atrophy of the vitreous body, and diminished bulk, the retina, losing its support, falls forward separated from the choroid, and the intervening space becomes filled with an adventitious deposit, capable of being organized and developed into bone; while the retina becomes coarcted and folded upon itself like a cord," its properties as a vitalized tissue being completely lost. Every texture of the eye may be the seat of ossification, the result of changes induced by long-standing inflammation, and almost always of a traumatic nature, and all such changes begin with the vascular portions—as the ciliary body and the choroid coat—by effusions of plastic material, changing to fibrous tissue, next granular osseous deposits, and lastly bone structure.

Though it has been doubted by some, as to whether these calculous depositions possess the properties of bone, as vitalized and independent organizations, yet the researches of Hulke, Virchow, Stellwag and others, prove conclusively that they are moderately gifted with vascular canals, lacunæ, and canaliculi,

and hence must perform certain and vital functions, otherwise it might be difficult to account for their growth and the superposition of various laminæ. Virchow evidently takes this view in his work on "Morbid Tumors," as quoted in the July number (1870) of *The American Journal of Medical Sciences*, where two interesting cases of bony deposit within the eye are introduced, by Dr. Harlan, to the March meeting of the Pathological Society, and a careful microscopical examination of both specimens by Dr. W. W. Keen. Stellwag says, too, "The ossification of these new formations begins from the external layers, while new connective tissue layers are placed on the inner surface."

Very few of the writers believe that the retina ever takes on this species of degeneration. Mackenzie doubts it, following, however, the doctrine of Panizza, who, from his dissection of a case, quoted in that learned author's work, page 649, merely considers such appearances of the hyaloid membrane and retina as calcareous incrustations deposited by the condensation of extravasated fluids; while Virchow, as above noticed, believes that the osteomata are small flat bones, developed on the internal vascular tunic, always the result of chronic choroiditis, and have been mistaken for ossifications of the retina. Stellwag, on the other hand, says, "that if any part of the retina remains in contact with the bony plates, it may also become bony." With this specimen in my hand, and from a careful examination of its position and peculiar laminated appearance, I cannot doubt but that the stem, joining the disks, is the retina transformed into bone, not by incrustations deposited upon it as a *point d'appui*, but by the same right, and in the same manner, as other vitalized tissues have to take on such changes; nor does the fact of its degenerated condition, with all its vessels atrophied, and separated from its choroid, materially alter the question in any respect, as it is by no means necessary in such calcareous degenerations that the substances have an independent vascular system, or have connection with parts so endowed (Rokitausky), and a very good illustration is furnished in the case of free bodies undergoing such transformations enclosed in serous sacks or cavities. Happy examples of changes from fibrous to osseous material will be seen in the formation of phlebolithes from clots of blood; of branching and irregular pieces of bonelike matter found in obliterated

veins; and, lastly, of mortar grains in the fibrous deposits on the heart's valves (Paget).

In these remarks I have only touched lightly and incidentally the several points of interest; first, the conversion of bone from ordinary inflammatory exudations, and the various processes of change; second, the ossification of the retina, for in this case no other portion of the internal eye could have furnished the connecting column; and, lastly, ossific degeneration of substances without vascular supply of their own, or dependence on other structures so supplied.

ARTICLE II.—*Report of Three Cases of Vesico-Vaginal Fistula.*
By A. REEVES JACKSON, M.D., Chicago, Ill.

CASE I. *Vesico-Vaginal Fistula—Operation—Cure.*

Mrs. G., the wife of a farmer, was delivered, at the age of thirty-seven years, of her first child, after a labor of twenty-four hours, without instrumental aid. The child was still-born. Four years afterwards she again became pregnant, and, on the 20th of March, 1859, after being in labor thirty-six hours, was delivered, with the aid of forceps, of a second still-born child, at full term. About the fifth or sixth day she observed that she had no longer power to retain urine, except in very small quantities, and only in certain positions of the body.

An examination made some months subsequently revealed a fistulous opening of an ovoidal shape, three-quarters of an inch long, connecting the vagina with the bas-fond of the bladder.

As the patient had a great dread of a cutting operation, an attempt was made to close the fistula by repeated applications of nitrate of silver. This having proved entirely unavailing, and the condition of the patient being truly deplorable, she at length consented to undergo any operative proceeding that offered a fair prospect of success.

There were two points of difficulty in the case, either of which might militate against the success of an operation. One was a very contracted vagina, and the other an exceedingly sensitive

condition of the urethra. This latter was so great, indeed, that the attempt to introduce a catheter produced the most excruciating pain. By using the instrument daily, however, the sensibility of the part became lessened, so that she was able to permit its presence during gradually lengthening periods, until finally it gave no uneasiness whatever, and for a few days immediately preceding the operation, she allowed it to remain four or five hours daily. The constriction of the vagina was removed in some degree by the use, two or three times a week, of an expanding speculum, by means of which the parts were put upon the stretch half an hour at a time. A series of sponge tents of suitable size would doubtless have been more efficient, but for some unaccountable reason she objected to their employment.

I also instructed the patient in the manner of introducing and removing the catheter herself, and this I regard as a very important part of the treatment, for in most cases it seems necessary to the success of the operation for vesico-vaginal fistula that the catheter remain constantly in the bladder, in order to carry away the urine so soon as it reaches that organ, and thus prevent any possible accumulation from endangering the newly-formed adhesions. And although the sigmoid catheter is a self-retaining instrument, yet it may and not unfrequently does slip from the bladder. Such an accident may occur during sleep, from an involuntary muscular effort; or the instrument may become entangled in the bedclothing, or in a variety of other ways it may be withdrawn, and if the patient be unable to replace it, and the medical attendant not near at hand, this circumstance alone may be sufficient to prevent success. Hence the importance of the patient being able to perform this operation without assistance, and likewise of realizing the necessity for having the catheter in the bladder during the entire progress of the after-treatment.

Operation.—The patient having the day before taken a full dose of castor oil, the operation was performed on the 12th of September, 1860, in the presence and with the assistance of Drs. Grattan, Bond and Bush, and Mr. Horace De Young, medical student. She was placed upon a table in the knee-elbow position, the pelvis being supported by a low stool covered with a pillow. By means of a Sims' speculum, the fistula was brought into tolerably good view, although, from the narrowness of the

vagina, this was not easily done. The day, too, was unfortunately a cloudy one, a circumstance which added greatly to the difficulties of the operation, for I know of none in which a bright sunlight is more desirable than this.

However, the edges of the fistula were at length satisfactorily pared, a complete circlet being removed, having its edge strongly beveled at the expense of the vaginal mucous membrane and subjacent tissue. The instruments used in this stage of the operation were a long-handled tenaculum and a straight knife.

The patient was now released from her uncomfortable position, and allowed to rest until all bleeding from the cut surfaces should cease, and, in the meantime, I made preparations for the second stage of the operation.

Having the patient again placed in position, and the parts exposed, I introduced six metallic sutures, three of silver and three of iron wire, the points of insertion and emergence being each about half an inch from the edges of the opening. The ends of each pair being drawn tense, sufficient twist was given to them to approximate and maintain the edges of the fistula in close contact. A fenestrated leaden plate or button was then passed down to the wound, the six pairs of wires passing through the fenestrum. This latter was beveled on the side applied to the line of incision, which, since the tightening of the sutures, was perfectly straight. The plate was secured in its position by means of perforated cylinders of lead, one of which was passed respectively on each pair of wires, and having been pressed firmly against the plate while the wires were tightly drawn, they were firmly squeezed between the jaws of strong forceps. The wires were then cut off close to the cylinders, and the operation was finished.

A sigmoid catheter was introduced, and a full dose of McMunn's elixir of opium administered.

After-treatment.—Every morning and evening the patient took a full dose of opium, for the double purpose of preventing irritability and of constipating the bowels. This latter object was also aided by a diet consisting exclusively of crackers and tea. The catheter was removed daily for cleansing, and another inserted. At no time, however, did any troublesome incrustation form upon the instrument. The urine was received in a vessel placed under the catheter for the purpose. The vulva was carefully syringed three times a day with tepid water.

On the third day after the operation I examined the parts, and had the satisfaction of finding them in a most favorable condition. The button was firmly in its place, and no urine was perceptible in the vagina. On the tenth day I removed the button without difficulty, and found beneath it a firm, hard cicatrix, extending the entire length of the former fistula. The sutures were permitted to remain two days longer, at the end of which time they also were removed.

During the night of the twentieth day after the operation, and while the patient was sleeping, the catheter accidentally slipped from the urethra. She awoke with a strong inclination to pass water, and made the effort, when, to her inexpressible delight, she discovered that for the first time in eighteen months she had power to evacuate the bladder at will. She at once replaced the catheter, however, and continued to use it the next three or four days, allowing it to remain out of the bladder an hour the first day, two hours the second, and so on until she felt safe in dispensing with its use entirely.

CASE 2. *Vesico-Vaginal Fistula—Operation—After-treatment, complicated with vesical hæmorrhage—Cure.*

Mrs. Moore, the wife of an Irish laborer, aged thirty-four years, is the mother of four children. At the age of nineteen she gave birth to her first child, after a labor of eight days' (?) duration. No instruments were used. On the ninth day after her confinement she noticed the urine dribbling from her, and it has continued to do so down to the present time.

An examination, made June 1st, 1863, revealed a large fistula, irregularly elliptical in shape, with red thickened edges. It extended from about the middle of the vagina to the upper boundary of the anterior cul-de-sac. The cervix uteri pressed through the opening into the bladder. Her condition being one of uninterrupted misery, she gladly consented to an operation that promised any measure of relief.

Operation.—The patient having been suitably prepared, the operation was performed June 11, 1863. I had the assistance of Drs. Bond, Bush and Osmun. There were also present, Messrs. Boys, Williams and Gulick, medical students. Having placed

her upon the elbows and knees, with the back towards a window, the vagina and fistula were exposed by means of a Sims' speculum. The cervix uteri was drawn away from the opening by means of a tenaculum, held by an assistant. The edges of the fistula were carefully pared, and brought together with eight silver wire sutures, each alternate one being clamped with perforated pieces of lead, and the others simply twisted. Previous to clamping the sutures, a fenestrated plate of lead was passed over the suture wires, as in the case of Mrs. G. A full dose of elixir of opium was given, the patient placed in bed, and a sigmoid catheter introduced.

Progress of Cure.—June 12th, 9 A.M. Patient did not sleep last night, but feels comfortable. The urine is scanty and bloody. It all passes into a vessel placed beneath the catheter. Syringe the vulva and vagina with cold water. Order crackers and tea exclusively as diet. Give a teaspoonful of elixir of opium.

9 P.M. The patient is very restless. Blood has been flowing all day, clogging the instrument, and necessitating its frequent removal. She complains of abdominal pain, and a constant desire to urinate. Remove the catheter, cleanse and replace it. Repeat opium.

13th, 9 A.M. Rested well last night, and is still drowsy. Pulse 104, soft and full. Syringe the vagina and vulva with cold water. Remove the catheter, and free it from clotted blood. The urine continues scanty and bloody. She is permitted to lie on her side.

7 P.M. Patient very uncomfortable, and complaining of an intense desire to urinate. No urine has flowed through the catheter for more than an hour. Remove the instrument, which is filled with a blood clot. A great deal of blood has been passing during the afternoon. Cleanse the instrument and replace it, giving exit to about two ounces of bloody urine, with great relief to the patient. The bleeding continues so profusely that it is found necessary to remove the catheter every few minutes. Accordingly I detail Messrs. Boys and Williams to remain with her during the night. At 10 P.M. I administer a full dose of opium, and enjoin the recumbent posture and strict quietude.

June 14th, 4 A.M. Am called in haste. The patient is in great pain from flatulent distension of the bowels. The catheter

has been removed and cleansed every fifteen or twenty minutes during the night, on account of the continuous flow of blood. Pulse 100, skin cool, some thirst. Syringe the vagina with cold water, and order three grains of gallic acid to be given every two hours. Also give one-quarter grain of morph. sulph. Shortly after taking this latter she passed a large quantity of flatus from the bowels, and at once became easier.

10 A.M. Has taken two doses of the gallic acid. Bleeding from bladder much diminished. Has slept during the last four hours. Remove the catheter and cleanse it.

5 P.M. Feels very comfortable. Bleeding still less. Pulse 94. Cleanse and replace the catheter.

June 15th. Am called at 3½ A.M. The patient awoke with much pain, and withdrew the catheter herself. It was filled with clotted blood. She complains of great pain. The urinal contains a considerable quantity of bloody urine, and a heavy clot is in the bottom of the vessel. Introduce the catheter, and remove an ounce and a half of urine tinged with blood, giving great relief to the patient. Syringe the vagina with cold water, repeat the gallic acid, and enjoin strict rest.

10 A.M. She has taken the gallic acid every two hours. The bleeding continues. Once, on removing the catheter, a number of clots are forced from the urethra, sufficient to form a mass as large as a walnut.

1 P.M. She seems much better. The urine now flows through the catheter almost free from blood. Continue gallic acid.

8 P.M. Patient in good condition. Urine flowing nearly clear. Continue gallic acid, and give a quarter grain of morph. sulph.

12 Midnight. Patient quite comfortable. Leave her in charge of Mr. Boys.

June 16th, 8 A.M. She has passed a good night. Urine free from blood. Syringe the vagina. Change clothing and bedding.

8 P.M. Urine has continued to flow through the catheter, with only a tinge of blood. Repeat morphia.

11 P.M. Change catheter. Notice a very slight trace of blood in the urine.

June 17th, 8 A.M. Has slept well during the night. Urine has flowed freely, but still contains a small quantity of blood. Syringe vagina. Repeat morphia.

10 P.M. Has slept nearly all day. Change catheter.

June 18th, 8 A.M. Syringe vagina and change catheter. Repeat morphia.

From this time forward the patient felt comfortable, except from occasional pain caused by flatulence. A slight trace of blood continued in the urine, but was not sufficient in amount to clog the catheter.

June 22d. This morning, with the assistance of Messrs. Boys and Williams, I remove the plate and all the sutures except two. The parts appear well, and union perfect. Introduce catheter and remove a half ounce of urine, which has accumulated during the removal of the button.

June 23d. To-day she feels entirely well, and thinks she could walk home (a distance of eighteen miles).

June 24th. Examine the parts and remove the remaining sutures. Notice a small spot of ulceration at the site of one of the sutures. Touch it with nitrate of silver.

June 27th. Patient steadily improving. She sits up to-day an hour and a half without the catheter. Towards evening it is again removed two and a half hours.

June 28th. Bowels moved this morning spontaneously, the first time since the operation—a period of seventeen days. Remove the catheter four hours, and then allow the patient to urinate without assistance.

July 1st. She starts for her home perfectly well.

(She has since given birth to two children; one on Sept. 5th, 1864, and the second in 1867, both labors being natural, and not followed by any injury to the vagina.)

CASE 3. *Vesico-Vaginal Fistula, of 28 years' duration—Operation unsuccessful—A second operation also unsuccessful.*

Mrs. W., aged sixty-eight years, has been afflicted with vesico-vaginal fistula twenty-eight years. She has had eight children, and the accident occurred during her last confinement. The labor was a lingering one, and was completed at the end of three days by instruments. She attributes her misfortune to the improper use of forceps, and says that at the time of their application she felt something "pinching" her.

Her general health was good, and she submitted to operation November 10th, 1863. There were present Drs. Thomas Bond, of Hainesburg, N. J., and P. M. Bush, of Marshall's Falls, Pa., together with some of the female relatives of the patient.

The fistula, on being exposed, was found to be situated on the right side of the median line of the vagina, about eight lines in length, and four in breadth. It was deeply hidden in a sort of pouch caused by the surrounding hardened and elevated portions of the vaginal mucous membrane. The latter also presented some superficial ulcerations, one quite near the fistula. The uterus was prolapsed, and its cervix exhibited a small ulcer covered with an ash-colored slough.

Operation.—The edges of the fistula were pared by means of a straight knife, and then brought together and secured by seven silver wire sutures. The tubular needle with which I intended to introduce the sutures was unfortunately broken during the attempt to place the first stitch. Having no duplicate, I was obliged to use a curved needle, with a pair of ordinary tonsil forceps, which made the operation both tedious and difficult. I employed neither button nor shot. The wires were simply twisted, and cut off close to the line of incision.

At the conclusion of the operation, which lasted one hour and forty minutes, I gave a teaspoonful of McMunn's elixir of opium, had the patient placed in bed, and introduced a sigmoid catheter.

Progress of treatment.—10 P.M. She complains of some pain, and has a desire to urinate. Change the catheter and repeat the opium. The diet to consist exclusively of crackers and tea.

Nov. 11th, 9 A.M. Slept some during the night, and this morning feels comfortable. Change catheter, and syringe the vagina with cold water. Repeat opium.

9 P.M. Change catheter and repeat opium.

Nov. 12th, 9 A.M. Slept well all night. Change catheter, and find it a good deal incrusted with lime and clogged with mucus. Syringe vagina. The withdrawal and introduction of the catheter occasion much pain.

Nov. 18th. The vagina has been daily syringed with cold water, and the catheter changed twice daily. Since the operation I have observed that the cloths placed beneath the patient

are always wet, but the nurse has accounted for this by saying that the urine overflows or flows back from the urinal. Notwithstanding this explanation, I have had misgivings that the operation has failed, and that the cloths referred to have been made wet by the urine which escapes through the fistula.

Nov. 19th. Am pretty confident this morning that I discover urine escaping from the vagina, while the catheter is temporarily removed for cleansing.

Nov. 20th. This morning remove the sutures, and discover that union has not taken place, and that the operation has failed. The patient expresses a determination to have it repeated.

Dec. 11. To-day I operate again, with the assistance of Drs. Bond and Bush. The mode of proceeding is the same as that before adopted, except that I use the fenestrated plate for steadying the sutures. At the conclusion of the operation, the patient gets a full dose of opium, which is repeated once or twice daily. The diet consists entirely of crackers and tea. The vagina is daily washed with tepid or cold water, and the recumbent position strictly observed. The catheter is kept in the bladder, being removed once daily for the purpose of cleansing.

On the fifth day after the operation I am satisfied that urine escapes from the fistula, and that the operation has again failed. Next day remove the plate and sutures. The size of the fistula has diminished nearly one-half, but the patient has no more power to retain the urine than before.

785 Michigan Avenue.

ARTICLE III.—*Excisions of Head of Os Humeri for Gun Shot Wounds.* By CHARLES M. CLARK, M.D., Chicago.

(Continued from page 331.)

CASE III.

Nathan E. Davis, 2d Lieut., Co. F. 39th Ill. Vols., wounded October 13, 1864, by rifle ball, which entered at upper and outer third of right humerus, passing downwards and inwards, making its exit at the middle third of arm.

The bone was extensively comminuted, with a corresponding degree of mutilation to the soft tissues. He was placed upon the operating table, from the ambulance, immediately upon its arrival from the field, and chloroform administered.

The following operation was then performed; Longitudinal incision was commenced at the acromion and carried down on dorsum of arm, to the extent of seven inches, through to the bone, care being taken to leave as much of the periosteum as was valuable, when removing the fragments, which amounted to twenty-seven pieces in all. Provision was also made to isolate the circumflex nerve, which, in this particular case, was of enormous size.

After the removal of all the "debris" of bone, blood clots, etc., up to the capsule of the joint, it (the capsule) was divided and the head of bone removed, which was found fractured in its longitudinal diameter. Then section was made of the lower and remaining shaft at the point of perfect integrity, and after a thorough cleansing, the lips of the wound were brought together with the interrupted silk suture, and dressed with adhesive straps—compress of lint—splints and bandage, and the man carried to a bed.

The following morning he appeared cheerful and expressed himself as feeling very comfortable and greatly relieved, and could have slept some had it not been for the constant attention of the nurse in the application of cold water to the limb.

Reaction was fully established, and he called for his breakfast, which was eaten with relish.

The wound had bled some throughout the night, but had no depressing effect, and, in fact, was nothing more than is usual in this class of operations, from venous congestion and the oozing from so large a cavity as this was, there having been fully five inches of bone removed, including the "os humeri."

He was conveyed to general hospital at Fortress Monroe, by hospital transport, the following day.

In a few days the wound was attacked with hospital gangrene, (the great scourge in Chesapeake hospital at that time) and in a few days he died.

Previous to his wound, and at the time of being wounded, he was suffering with chronic diarrhœa, and had but lately returned

from a furlough given him on that account. His system was vitiated, and the vital powers much below a normal standard.

CASE IV.

Horace W. Stilwell, private, Co. B., 142d New York Vols., wounded, October 27, 1864, by conoidal bullet, which entered right shoulder anterior to head of bone, and passed obliquely downward and backward, lodging just underneath the skin at the middle third of the arm.

The bone was greatly shattered, and the capsule of the joint extensively lacerated, with free discharge of synovial fluid.

Chloroform was administered, and the head of bone, together with six inches of the shaft, removed, by an operation similar to the ones already described.

He rallied well from the operation, and on the following day was sent to general hospital at Fortress Monroe.

I have never learned the result of this case from any authentic source.

CASE V.

William Mahon, private, Co. —, 67th Ohio Vol. Infantry, wounded, June 2, 1864, by rifle ball, which entered the left shoulder, on its dorsal surface, passing transversely through the joint—splitting the head of bone and comminutely fracturing the neck and shaft, finally lodging just underneath the integument of inner surface of arm—or rather within the triangle of the axilla. The man was not brought from the field until nine o'clock P. M., and it was fully midnight before he was placed upon the table. Chloroform was given, and a full and free examination made by many of the surgeons attached to the operating staff. The decision arrived at was, that the operation for excision of the "os humeri" should be performed.

This was the first operation for excision of the shoulder joint, and, in fact, the first excision of any character in the hospitals of the Army of the James, and it was proceeded with under the most adverse circumstances, as far as light was concerned, for our supply of candles had given out, with the exception of one which was called into use at this time.

Dr. H. P. Babcock, U. S. N., then on shore, from the U. S. gunboat "Agawam," and who during the day had rendered valuable service, kindly assisted me in the operation, together with my usual table assistants.

The operation consisted in the same steps as heretofore described, and occupied fully an hour's time, by reason of the unfavorable conditions of insufficient light and inexperience with the operation, it being the first operation of the kind that I had attempted.

Great care was exercised in preserving the periosteum and in the dressing of the arm after the operation.

The following day he was placed on the hospital transport, "Hero of Jersey," and conveyed to Chesapeake hospital.

Six months afterwards, I was told by his regimental surgeon (Dr. James Westfall), that he made a good recovery—had been discharged from the service and was living at Toledo, Ohio, with a useful arm.

ARTICLE IV.—*Clinical Lectures on Diseases of the Ear.* By E. L. HOLMES, M.D., Professor of Ophthalmology and Otology in Rush Medical College, Surgeon to the Chicago Charitable Eye and Ear Infirmary.

(Continued from page 439.)

PHYSIOLOGY OF THE EAR—SOUND.

Gentlemen:

You are familiar with the fact that undulations of the air set in vibratory motion the membrana tympani. The vibrations of this membrane produce, through the ossicles, microscopic waves in the fluid of the labyrinth, which beat against the fibres of the auditory nerve, producing the sensation we call sound.

You have almost a perfect, though rough, illustration of the mechanism of hearing, if you place the tip of a small syringe filled with water, in a small glass of water, in which float coarse particles of some dark powder. Slight but rapid motions of the piston will cause delicate currents in the water rendered visible by the motions of the particles floating in it.

To comprehend, as far as possible, the wonderful delicacy of

the apparatus we have described, we must endeavor to conceive precisely what takes place in the ear, the ordinary medium of sonorous waves, when sound is produced.

A wave of sound, however originated, is a portion of the atmosphere in a state of condensation, followed by another portion in a state of rarefaction.

To picture in our minds these waves, which we cannot see, let us turn to a very familiar phenomenon.

A solid body dropped, for instance, into a placid sheet of water, causes waves to pass in circles from their origin to the shore. In this case a wave is that portion of water embraced in one elevation and one depression, its height and length depending on the size of the body producing it. This holds true in case of the mightiest billow of the ocean, or the tiniest ripple set in motion by the finest grain of sand.

You should bear in mind that atmospheric waves commence at a point and extend, not in circles as do the waves of fluids, but away from this point in spheres, consequently in whatever direction a person may be in reference to the origin of the sound, a portion of the sound wave must enter the ear.

When a series of waves in sufficiently rapid succession, whether caused by the vibration of a tuning fork, a stretched cord, or by any wind instrument, strikes against the membrana tympani, we have the sensation of a "tone;" the more numerous the vibrations, the higher the pitch of the tone.

The octave of any musical tone is produced when the number of vibrations causing the tone is doubled.

It is worthy of special remark that the human ear has no perception of a tone produced by vibrations exceeding about thirty-eight thousand in a second. Recur once more to the sheet of water I have already taken to illustrate, by its visible waves, the invisible waves in the air.

You have undoubtedly often observed that numerous small bodies dropped in regular and rapid succession into the water produced a series of small waves following each other in the same regular succession in which the bodies fell. You have also all observed on the surface of large waves smaller waves, and over these smaller waves ripples, all moving at the same instant. The eye is limited in its power of distinguishing the infinite gradations

in the series of waves which absolutely exist and roll, the smaller over the larger, when a very large series of bodies, varying in size, from that, for instance, of a large cannon ball to that of a grain of sand, fall within a few seconds into water.

Now picture in your minds, if possible, what occurs in the air during the performance of a piece of music by a large orchestra. The various bass tones reach the ear in waves measured in length by several feet — and varying in length according to their pitch; in these long waves also move the short waves produced by the instruments of a high pitch. All these waves, so infinite in number and various in length, not only enter the ear at the same instant with unvarying regularity, but do so even though they cross each other in every direction, as when we stand in the centre of a circle, the orchestra being arranged at the circumference.

It will assist us in comprehending these phenomena and their relation to the ear, by turning for a moment to some of the phenomena of light. As sound is produced by undulations in the air (usually), so light, as now generally believed, is caused by undulations in (a hypothetical) ether.

As light may be reflected concentrated by convex lenses or by concave mirrors, so sound may be concentrated by concave surfaces or by suitable lenses. You have seen the phenomenon of vision illustrated by the photographer's camera, on the ground glass screen of which the images of objects before it are formed.

You have repeatedly seen the experiment, in which the camera has been filled with smoke, when not only the image on the screen was seen, but also the cones of light, their bases and apices, being clearly visible. You have also seen how these cones may be lengthened or shortened, by concave or convex lenses, their form changed by cylindrical (astigmatic) lenses, and their direction modified by prisms placed before the object glass of the camera.

In this manner we have visible before us, in miniature, suspended in the smoke, the cones of light radiating from every object. In fact, the camera not only presents an image of all objects before it, but also, on a reduced scale and reversed, every pencil of light emitted from these objects.

I have digressed in this manner to impress, if possible, upon your minds just what occurs in the ear. If it were possible to

look into the labyrinth, and if the eye were sufficiently delicate, we should witness in the fluid of the labyrinth minute waves and ripples, which would be, as it were, reduced miniatures of every tremulous motion in the air, caused by the busy hum of human life, by the winds moving through the trees, by the fall of rain, the cry of animals, and notes of insects. All this infinitude of waves in the air finds each its individual counterpart accurately transferred to these few drops of fluid in the ear.

Thus far, in our studies of the anatomy and physiology of the ear, we have considered a few demonstrable facts. I will not lead you through the various theories which have been devised to explain the functions of different portions of the labyrinth and of the middle ear.

The theory of Helmholtz, however, regarding the cochlea is so beautiful, and supported by so many facts, that I cannot omit allusion to it here.

The portion of the auditory nerve distributed to the cochlea, is divided into a very large number of fine fibres, which may, not without propriety, be compared to the strings of a piano.

You are familiar with the fact that a musical tone, sounded either with the voice or some musical instrument over an open piano, causes the same tone to be repeated. Certain strings give this tone, while all the others are silent. Change the tone, the former strings will be silent, while others give the response.

In accordance with the theory of Helmholtz, low tones are distinguished by certain fibres alone, and high tones by other fibres of the cochlea nerve.

It is a curious pathological fact that there are patients to whom the lowest tones of the scale are absolutely inaudible, while all ordinary sounds and tones are accurately heard; other patients are totally deaf to the highest tones of the scale, because, according to this theory, the nervous fibres which distinguish the base or high tones are paralyzed.

From what has thus far been shown, you can appreciate to what extent sound is produced by mechanical means, and to what extent the auditory apparatus is strictly mechanical.

From this you will not be surprised to learn that deafness, in a very large proportion of cases, is produced by impaired motion of the stapes. Chronic inflammation of the middle ear causes

thickening of the membrane which surrounds the minute bones, which forms the "packing" of the stapes, which constitutes the membrane of the foramen rotundum, and of less importance, perhaps, the membrana tympani.

In fact, gentlemen, I do not think it is in any way unscientific to compare the ear, in a very great majority of cases of chronic inflammation, to a syringe in which the motions are obstructed or arrested by tightness around the handle, or by too close packing around the piston.

In our future lectures we shall confine our investigations to the answer of practical questions regarding the causes, diagnosis and treatment of the more common diseases of the ear.

ARTICLE V.—*Fracture of the Cranium.* By THEO. W. STULL, M.D., Marengo, Ill.

Seeing a case of fracture of the cranium reported not long since, reminded me of the following—to me—interesting case; and thinking, perhaps, that it might be interesting to others as well, is my reason for reporting it.

On the 11th of April, 1870, Dr. J. W. Green requested me to see a patient with him at his office. Said patient was a stout, healthy lad—Dennis S.—about 15 years of age, of whom the father gave the following history:

Ten days before, while leading a horse to water, he had been struck on the top of the head by a dull heel cork of the animal's fore foot, it rearing and striking in play. The lad fell partially down, but immediately recovered himself, pursued and caught the horse. During the following week he plowed considerably, and worked about as usual, without manifesting any particular symptoms of illness. One week from date of injury, he was attacked with spasmodic contractions of the muscles of the limbs of the right side, while at work. By a brisk friction of the muscles the spasmodic action was relieved, but a partial paralysis remained. The father now took the boy to Harvard, to his physician—who was then sick, and since dead—and, after describing the case to

him—the boy remaining out in the wagon—he was advised to take his son to Woodstock or Marengo, the doctor remarking that there was no one in Harvard who could do him any good. Not satisfied with this, the father took the boy to another physician, who claims to be a regular, and he examined the case, told the father to keep a plaster over the slight wound of the scalp, gave him a vial of medicine, and told him the lad would be well in a week. Two days later, the father, not satisfied with the boy's progress toward a convalescence, decided to bring the lad to Marengo, to Dr. Green, which he did on the 11th, a distance of fifteen miles, in a lumber wagon, and on a hot spring day. After a short examination, we informed the father that the skull was fractured, and that an operation was necessary. After informing him of the gravity of the case, we appointed the next day to go to the father's house and operate, which we did. The lad could still walk with a dragging movement of the right limb. The head was now closely shaven for some distance around the scalp wound, chloroform was administered to anæsthesiæ, and Dr. Green commenced the operation by making a V shaped incision, apex to the front through the skin and tissues, down to the cranium. The shape and size of the fracture of the outer table was of the shape and size of a well-worn heel cork, and was situated about 1¼ inches posterior to the coronal, and about half an inch to the left of the sagittal suture. The fracture of the inner table was in several pieces, and imbedded into the brain substance. The Doctor succeeded with but little difficulty in removing all the fragments, the aggregate of which formed a piece three-fourths of an inch wide and one inch in length. Brain matter escaped to the amount of the size of a large hazel nut. The hæmorrhage was quite profuse. After thoroughly cleansing the wound and staunching the blood, the wound was closed with adhesive straps, a cold water compress applied, and a continued use of the cold water dressing directed. The patient rallied well from the effects of the chloroform, and was placed in bed. A light diet was directed. The third day Dr. Green again visited this patient, and found him sitting up and able to walk about as he chose, the paralysis being gone. The Doctor now dismissed the case.

The last fall the father again visited our place. He informed

Dr. Green that the tenth day after the operation the boy went to plowing, and continued well through the season.

It is at least passing strange that the boy should receive so severe an injury of the skull without experiencing scarcely a noticeable shock from the concussion, and also that with this amount of injury to the brain matter, there should result so little inconvenience to the nervous system.

ARTICLE VI.—"*Formula, No. 2.*" By H. W. RICHARDSON, M.D., Chicago, (formerly of Woodstock, Ill.)

I. S. Hawley, M.D., of Brooklyn, N. Y., in an article on "Pepsin and its Incompatibles," page 212, April No. of the Journal, takes occasion to state what no one will deny, that failures sometimes occur in administration of true and active medicinal pepsins. After enumerating some reasons for these failures, given by Chambers, he proceeds to illustrate other reasons by reference to formula written by me for the March No. of the Journal. He claims, I judge, as a matter of theory, without having tried it, that this formula fails, because the outgrowth of careless pharmacy, or utter disregard of the laws of Physiological Chemistry.

Without any disposition to occupy the space of the Journal or the time of its readers in an elaborate answer to Dr. H., we must say that we are amused at his conclusions—

1st. That "Whatever good this mixture may have done, is *not* attributable to its peptic action."

2d. That "Simple pepsin is capable of accomplishing *all* the indications here set forth."

If the Dr. can reconcile these two propositions with each other, we shall readily accord to him the honor of being ahead.

We admit freely, after submitting these matters to a practical test, that there may be conditions of the stomach requiring acids with pepsin, and other conditions requiring alkalies with pepsin, and others again where pepsin alone is *the* thing. We could give, however, were it necessary, numerous instances of marked

benefit, and some of almost miraculous relief and cure, from the exhibition of the exact formula given. And we are not making it too emphatic when we say we *know* that the alkali in the formula given does not destroy or neutralize the action of the pepsin. Please understand we are no sticklers for any one formula or set of formulas, and as a rule think that every man should formulate his prescriptions to suit the exigencies of each individual case.

Our reason for using the formulas in question has grown out of a recognition of, and firm belief in, the doctrine, that the condition met with as a rule in diarrhœa, is one of *inanition;* that unfortunate babies, starved by hand-feeding or by the imperfect condition of the mother's milk, attacked by diarrhœa, are not cured or benefited, but are slain by the thousands by the routine adherents of calomel, castor oil, rhei, etc.

We admit these agents may be necessary in some rare instances, but while, perhaps, they may make the stools less disagreeable for a time by throwing into the bowels a quantity of bile which prevents their decomposition, this is done at the expense of the poor child's body, and can but contribute to the debility, and hasten the destruction of the child. If we read the laws of physiology and pathology correctly, diarrhœa is that departure from a physiological condition which involves defective vitality of mucous membranes; defective absorbing power; suspension, either partial or complete, of the gastric function; possible congestion of the portal system; irritation of the stomach and intestines; and augmented exudation of fluids. Chambers teaches that not only these departures from health, but chorea, epilepsy, teething fits, convulsive apoplexy, delirium tremens, hysteria, and some forms of mania, are familiar instances of *diseased inanition*, and that the treatment should consist in the *replacing lost nervous power*, not of restraining its excess.

It seems to us then that cathartics should be used in diarrhœa only when the prima via needs unloading; that our aim should be to *control* diseased action—either by the use of formula No. 1 or its equivalent—and restore—either by formulas Nos. 2 and 3 or their equivalents—nutrition and health.

Selections.

The Mineral Springs of Michigan. Report of Committee to the Michigan State Medical Society.

The committee was composed of Dr. H. O. Hitchcock, of Kalamazoo, Dr. Kedzie, of Lansing, and Dr. Duffield, of Detroit.

The work had been subdivided and assigned in the following manner:

1. The geology and natural history of the mineral wells—Dr. Duffield.

2. The magnetic properties of the waters—Dr. Kedzie.

3. The actual therapeutic value of the springs as shown by the statistics of cases treated by the waters—Dr. Hitchcock.

Dr. Kedzie presented the report for himself and Dr. Hitchcock.

The investigations of Dr. Hitchcock showed that though many hundred patients had visited these springs, the number of cases in which the patients themselves had acknowledged benefit were too few to safely reason from. Dr. Hitchcock had prepared a careful and accurate report of these cases, from which it appeared that while some had been apparently made worse by the drinking of these waters, there was some reason to believe that some cases of neuralgia and paralysis had been benefited, but the query was propounded whether these and other diseases treated at these springs could not be as well treated by a judicious attention to diet and bathing at home.

Dr. Kedzie's report of his investigation as to the magnetic properties of the waters of these wells is an able and conclusive one.

He began by reviewing the history of magnetic wells in the State, and showed that since the first excitement which arose over the supposed discovery of such properties in the water of an artesian well in St. Louis, Gratiot county, these wells had multiplied until there was scarcely a town of any pretension in the State but possessed one or more of these wells. He says: "It becomes therefore a matter of some importance to thoroughly examine this question, for if, contrary to the generally received opinion of scientific men, water is susceptible of magnetic influence, becoming magnetic and imparting magnetic properties to other bodies—and if healing powers reside in the waters of our State arising from this magnetic property, it should be a matter

of State pride for our physicians to recognize and develop this new therapeutic agent, and bring it to the notice of the sick and the suffering. But if this magnetic property has no real existence in the water, and is only associated with it by some adventitious circumstances, then the sooner this fact is recognized the more will people be saved from loss and the sick from disappointment cruel as death." The doctor confines himself to the following two questions: "First, Do magnetic properties exist in these waters? Second, Do any healing powers which they may possess arise from this magnetic condition?"

He then reviewed the fanciful notions that had existed in explanation of these supposed properties of water, reviewed the researches of chemists in regard to the magnetic properties of water, among which the most important mentioned are the conclusions of Professors Graham and Faraday.

Since Graham had shown that metallic hydrogen is magnetic, and Faraday had brought to notice the magnetic qualities of oxygen, the question might arise "whether an oxide of hydrogen may not possess magnetic properties." This was rendered the more forcible by the fact that an oxide of iron ($Fe_3 O_4$), called loadstone, possessed this property in such a high degree.

An idea of this kind might have lead some scientific men to favor this notion. A sufficient reply to this is that monoxides do not possess magnetic properties "in any intensity, but only the union of the monoxide and sesquioxide, e. g., $Fe O + Fe_2 O_3 = Fe_3 O_4$, which has received the name of the magnetic oxide. Water is a monoxide, hydrogen forms no sesquioxide, and a mono-sesquioxide is, therefore, impossible."

He then further reviewed the experiments of Becquerel and others, which showed conclusively that water was not magnetic, and says, in comparison with these masterly investigations, "the experiments of individuals made here and there with apparatus obtained from the village blacksmith shop or drug store, made in complete ignorance of many of the laws of magnetic induction, sink into utter insignificance. But this is not the age of respect for authority, and the principles evolved by such masters in science as Michael Faraday 'pale their ineffectual fires' before the confident assertion of some rustic who has tried the experiment, and *knows* the water of his well is magnetic, and magnanimously pities the ignorance and conceit of scientific men who are disposed to accept the authority of Becquerel and Faraday, and doubt the assertion of the rustics."

The doctor then enumerated experiments of his own, showing that the water of these springs possesses no such magnetic properties; that the mistake had arisen from the magnetism possessed by the iron tubing of the well which resulted from its vertical position. He showed that the iron rod that had been supposed to

become magnetic by being placed vertically in a vessel of this water, would assume the magnetic property equally as quick if rain water, or *even no water* was used.

So far as he had been able to ascertain, the magnetic power manifested by these tubes in the so-called magnetic wells was proportional to the mass of iron, and varied with the depth and size of the pipe. It is manifested by the attempted artesian well in Charlotte, which has not reached flowing water, but is only a vertical iron tube sunk in the soil, yet it is magnetic just the same as the flowing wells.

The doctor met the assertion that bodies had been magnetized by the water of these wells when removed from these tubes, by experiments made by himself that proved to the contrary.

To illustrate the evidence upon which magnetic properties had been asserted to exist in the waters of these wells, he relates the following amusing incident: "I received, last year, a letter from an intelligent and enterprising editor in this State, saying that I had certainly fallen into error in asserting that the iron tube alone, and not the water, was magnetic. As a triumphant proof of my error, he inclosed a piece of knitting needle, which, before the experiment was made, had been tested and found to be possessed of no magnetic property, yet this needle had been so highly charged by holding it in the water, never coming in contact with the tube at all, that it would readily suspend a shingle nail, and to complete the proof the nail was also inclosed, and the needle certainly did support the nail with ease. As this looked like a pretty strong case, I visited the locality to see the experiment repeated. We armed ourselves with pieces of steel wire reasonably free from magnetism.

"The editor proceeded to repeat his experiment by holding the wire *in the water inside the pipe* from which it was flowing. I objected that this was not a fair test of the magnetic properties of the water, because the tube was itself strongly magnetic, and by placing the needle inside this tube, only an inch in diameter, it was brought within half an inch on every side of a magnetic body, and that magnetic induction will take place through water just as it will through any non-magnetic body. He said this was the way the other needle was charged, but that it made no difference, the water would charge just as well when entirely removed from the tube.

"I suggested placing the water in non-metallic (glass) vessels, and then to try the experiment. He cheerfully accepted the challenge, and he and his friends churned their wires in the water till darkness put an end to the trial without developing a particle of magnetism. He was not convinced, would try the experiment again when he had more time, and let me know the result. Nearly a year has passed, but I have heard nothing further from him on the subject of magnetic water."

The doctor then mentioned that many intelligent persons were deceived by the fact that magnetism may be imparted to pieces of steel, as a knife blade, if it be left in the direction of the magnetic dip or approximating to it, so that at a distance of several feet, or rods even, from the tube, he dips his knife blade in the stream and tests it after it has been thus exposed, he will find it possessed of faint magnetic power. He is told that if he will leave it longer, the water will impart to it its magnetic power more strongly, and it will become more sensibly magnetic. "Is not this *proof?* shall he not believe his own eyes? for he has seen all. Yet not all; for, while he watched, unseen forces have pulled at that bit of steel; gravitation has strained at it with a steady tug, yet all unseen. If you suggest this, the man will grant it at once. But other forces have been at work.

"The magnetic lines of force, like silken cords, have given their invisible and intangible strain upon that bit of steel. Little by little, atom by atom, this eternal force has worked its way through that bit of steel, bringing one molecule after another under its sway; give it time, and it will bring it all under its mysterious control. The force was none the less real because invisible; and he who will reject, even in physical science, the influence of the unseen because it is invisible, will find that the seen and the tangible will only mock and deceive him."

The doctor closed his able report with the conclusion that if the waters possessed therapeutic properties, it was not due to magnetism, for *the water has no magnetism.*

Dr. Duffield read but a small portion of his report.

He stated that we had no mineral springs in this State; that many of the wells termed magnetic have never reached the rock, but that the mineral substances found in the water had been taken up as it filtered through the soil, on its way to some hard and impervious strata upon which it had gathered. Some of these waters contained a large amount of organic matter, which alone should deter the practitioner from prescribing them for his patient. The doctor then gave a grouping of the wells, the principal of which are chalybeate, acidulous or carbonated, sulphurous, and saline. He said, that in prescribing these waters, the physician must remember that his patient must be sent away from the comforts of home, and we cannot be too careful how we send patients to these different springs, lest some time in some graveyard we may meet upon a tombstone the same lament which was found in England:

> "Here lies I and my two daughters,
> Killed by the drinking of Cheltenham waters;
> If we had stuck to Epsom salts,
> We would not have been in these here vaults."

Opium. By R. Rother.

The great importance of opium as a medicinal agent requires, and the peculiarity of its constitution admits, a very definite adjustment of its power. It has long been the effort of leading pharmaceutists to popularize a system for definitely standardizing the activity of crude drugs or their preparations. But only a very limited number of these substances have thus far yielded desirable results by the practically applicable methods of analysis at present known.

It is exceedingly fortunate, however, that opium—one of the most valuable in the materia medica list—can be so easily and accurately assayed. The standard of quality is based upon the quantity of its chief constituent, morphia, and the method of isolating it for this purpose is founded upon the original process of Sertuerner, by whom "the alkaloid" was discovered.

Among the numerous alkaloids and other principles of opium, are several besides morphia of acknowledged power, as opianina and papaverina, for example, but these are found only in minute proportion. There is another at least of medium power, but much inferior to morphia both in effect and quantity, called codeia, and another occurring copiously, but medicinally inert, named narceina, and one entirely destitute of narcotic properties, performing the function of a powerful tonic merely, and strangely denominated narcotina, in quantity exceeding all the others but morphia. Together with these a considerable quantity of undetermined or unknown compounds of a more or less active character, complete the list of ingredients to which opium owes its activity, and for all, taken as a whole, the gauge is the morphia strength.

The serious nervous disturbance following the usual effect of opium on the system, is attributed to an exceedingly subtle and as yet undetermined substance. But it has been found that ether will thoroughly remove this noxious and objectionable body. In consequence, a number of opium preparations, proprietary and otherwise, are in general use, all differing from ordinary opium compounds, by the reason that the preliminary action of ether was resorted to. The noxious substance, however, seems to be but sparingly soluble in water; so, then, a preparation made with an aqueous extract of opium, may possess an approximate identity to one made of opium purified by ether.

The elegant and unsurpassable deodorized tincture of opium of the Pharmacopœia, is as yet comparatively unknown, but its virtue is only apparently eclipsed by similar yet secret preparations, whose only merit over it is the advantage derived from a priority of introduction into general use through the customary system of advertising, and probably, also, a uniformity in morphia strength, determined by assay.

Although it is an officinal requirement that all opium entering

into the compounds of the Pharmacopœia should contain seven per cent. of morphia, the direction is rarely observed, and therefore an inferior opium employed otherwise according to the Pharmacopœia, will necessarily yield but a worthless or very weak preparation. However, now it is generally agreed that when opium is directed officinally, as in the preparation of Tincture of Opium, it should contain ten per cent. of morphia, or four grains of the pure alkaloid in the fluid ounce of the tincture.

Comparatively simple as the process of isolating the morphia for the purpose of assay may be, it still requires especial precaution and considerable experience to obtain strictly reliable results. In view of this fact we have numerous methods, each with its particular advantages, proposed to attain the desired end. But in most cases, and especially in doubtful ones, two separate assays are usually performed, and if possible by different yet equally accurate methods. To obviate this inconvenience, and insure a perfectly conclusive result at once, the number of these processes still accumulates.

The most prominent methods of assay are as follows:

The process of Merck is to boil half an ounce of opium first with eight ounces, then with four ounces of proof spirit, filtered, and the filtrates evaporated to dryness after the addition of two drachms of disodic carbonate. The brown residue is introduced into a tall cylindrical glass vessel and softened with water, the colored supernatant liquid poured off, the residue again washed with water and then brought in contact, for one hour, with cold alcohol, sp. gr. .85. The mixture is now poured upon a filter, the residue washed with alcohol, and then dissolved in half an ounce of distilled vinegar previously mixed with its bulk of water, the morphia again precipitated from the filtrate by the addition of a slight excess of ammonia, and after twenty-four hours the precipitate is poured into a filter, dried and weighed.

Duflos exhausts opium with cold water, adds one-eighth of its weight of monopotassic carbonate, and sets the mixture aside for twelve hours. The liquid is then filtered from the precipitated narcotina, and boiled until the effervescence of carbon dioxide has ceased. After twenty-four hours the morphia has all precipitated as a crystalline powder, and in order to free it entirely from adhering narcotina, it is again dissolved in very dilute sulphuric acid, the solution mixed with alcohol, until the whole liquid weighs nine-fourths as much as the opium employed, and the morphia reprecipitated with a slight excess of ammonia.

According to Mohr, the opium is three times successively treated with water, the liquids united, evaporated, filtered and poured into boiling milk of lime, containing one-sixth to one-quarter as much calcium hydrate as the weight of the opium used. After boiling a few minutes the mixture is poured on a linen strainer,

the precipitate washed with boiling water, and finally pressed. The strained wine yellow liquid is now reduced by evaporation to twice the weight of the opium, and filtered if necessary. This is now heated to boiling and the morphia precipitated by addition of ammonium chloride equal to one-sixteenth of the opium used. By solution in dilute chlorhydric acid and treatment with animal charcoal, the morphia can be further purified.

By a fourth method, the aqueous infusion of opium is treated with plumbic acetate as long as a precipitate occurs; this is collected on a filter, and washed with water until the filtrate is not perceptibly bitter. The excess of lead is now precipitated from the filtrate with sulphydric acid; the lead sulphide left in contact with the liquid for some time, then filtered, and the wine yellow filtrate cautiously treated with ammonia. A resinous precipitate containing narcotina is thereby separated, which adheres tenaciously to the walls of the glass. The liquid is now poured off, and the morphia precipitated by a further addition of ammonia.

Instead of using water the opium can also be exhausted with dilute acetic acid, the liquid repeatedly evaporated, after adding fresh portions of water until the excess of acid is expelled, and the narcotina, together with extractive, has become insoluble. The morphia is then precipitated with ammonia, washed with water and alcohol, and finally crystallized from absolute or ninety per cent. alcohol.

According to Thiboumery, opium is three times successively treated with cold water, and the infusions evaporated to a syrupy consistence. The extract is mixed with water, poured on a filter, and the residue washed with water until decolorized. The filtrate is now boiled and precipitated with ammonia; after cooling, the precipitate is filtered off, washed first with cold water then with alcohol, sp. gr. .94, until decolorized, and dissolved in boiling alcohol, sp. gr. .84, with the addition of animal charcoal, filtered, and the morphia crystallized from the solution.

Guilliermond rubs the opium, first broken into small fragments, three times with three times its weight of alcohol, 71 per cent. and filters into a wide mouthed bottle containing ammonia equal to one-quarter the opium used. After twelve hours, rather large colored crystals of morphia separate, together with small shining crystals of narcotina. The crystals are then poured on a linen strainer, washed with water, dried, and then thrown into water: the morphia sinks to the bottom, whilst the narcotina remains suspended and can be poured off.

By the method of Fordos, the opium, cut in slices, is first macerated with four times its weight of water, for twenty-four hours. The mixture is then thoroughly rubbed up in a mortar and poured on a filter; when the liquid has flowed off, a second and then a third portion of water, equal in weight to the opium, is poured on.

One-third of the mixed liquids is then precipitated with ammonia, to determine the requisite amount for the remaining two-thirds. To the remaining liquid an equal volume of alcohol, 85 per cent., is added, and twice the quantity of ammonia first used. The mixture is now agitated and transferred to a bottle, well stopped, and allowed to stand for two or three days. The deposited crystals are now poured on a filter, washed with weak alcohol, about 40 or 50 per cent., and then treated with ether, after this with chloroform, and again with ether; after drying, the crystals are weighed as pure morphia.

By Staples' process (the officinal process), opium is first macerated with five times its weight of water for forty-eight hours, then exhausted with cold water, the infusion evaporated to about eight times the weight of the opium, and about an equal volume of officinal alcohol added; to this an excess of ammonia, previously mixed with alcohol, is added in two portions, after an interval of twenty-four hours; at the end of twenty-four hours, the deposited morphia is first washed with a little diluted alcohol, then with water, dried and weighed.

From these various processes, we observed that the best method for exhausting the opium of its morphia is the treatment with cold water, preceded by a maceration; it is also seen that ammonia is the final precipitant in every case, and, with the exception of the third and fourth methods, alcohol is used in every instance to decolorize the morphia. In nearly every process the adhering narcotina is separated by again dissolving the impure morphia in some dilute acid, and precipitating it a second time. But in the method of Fordos, ether and chloroform are used for this purpose.

Now, to understand the relative value of all these processes, it must be known that morphia is insoluble in alkaline carbonates, quite soluble in ammonia (one grain dissolving in about 100 of the ordinary 18 per cent. ammonia), soluble in 1,000 parts of cold water, and in 500 when hot; it is also soluble in about 100 parts of strong alcohol, which solubility gradually approaches that of water as the alcohol is weaker; it is insoluble in ether, but soluble in 60 parts of chloroform. One grain of pure morphia will also dissolve, after a few moments shaking, in a mixture of five fluid drachms of strong alcohol, four fluid drachms of water, and one fluid drachm of chloroform. But the same quantity of morphia is scarcely if at all diminished by a mixture of four fluid drachms each of strong alcohol, water and ether. The writer believes that the exceeding solubility of morphia in chloroform may sometimes be due to acidity of the latter, and, therefore, chloroform should never be used for purifying the morphia in opium assays. Ammonia, although used in all the processes, is objectionable because an excess is required first to separate the morphia completely; and as it is difficult to ascertain the exact amount in each case, an im-

to the exfoliation of epidermis. Sensation, tested by the æsthesiometer, indicated equal tactility as compared with corresponding points upon the other leg, but there was increased sensitiveness to pain, especially marked in those parts which were most profoundly altered. The temperature of the parts, as ascertained by a Seguin's surface thermometer, was 58° F. behind the malleolus; 74° at the middle; and 81° at the upper part of the leg. Corresponding points upon the healthy limb indicated 74½°, 78°, and 81° respectively. Above the knee the thermometer registered 89° on each limb. Four and a half inches above the ankle, the left leg measured 7½ inches in circumference, and the right 8 inches. This was apparently due to muscular atrophy from want of use.

Treatment was commenced upon the 20th of December by the application of the positive rheophore to the upper part of the left leg, and the negative was then moved slowly over the affected portions. It may be proper to state that at this time we were not aware of Fieber's case, or that galvanism had ever been applied in the affection we were treating. The applications lasted from five to ten minutes at each sitting, and were repeated every other day. Perceptible improvement was manifested after the fifth or sixth application of the continuous current. Improvement continued, and the patient was presented at the January and February meetings of the New York Dermatological Society. By the middle of March, the skin above the malleolus had resumed its normal aspect, and was freely movable upon the cellular tissue. The portion which lay immediately over the malleolus was also freely movable over the bone, and its cicatricial appearance was somewhat modified, having lost to some extent its dead white color. Considering the dermic condition as substantially well, we commenced Faradization of the gastrocnemius and other muscles. This was continued for a few days only, as the patient felt herself so much recovered that she did not deem it worth while to attend the dispensary any longer.

The battery employed consisted of a combination of thirty-two Smee's elements of small size, twenty-four of which gave *as intense a current* as the patient could bear without discomfort. It may be stated that galvanization of the sympathetic was tried on one or two occasions, but was not continued for fear of complicating the treatment. No medicines of any kind were given.

Clinical observation of the effects of electric currents in morbid conditions is so often at variance with the results of electro-physiological experiment, that very little assistance is afforded us in any endeavor to explain the former by a knowledge of the phenomena of the latter. We must therefore be excused from attempting to explain the *rationale* of the treatment employed in the cases recorded above. One fact, however, seems to be

demonstrated, at least to the satisfaction of myself and of those who have witnessed the employment of electricity in cutaneous affections, and that is, that electrical currents, both primary and induced, possess in an eminent degree the power of modifying for the better certain morbid conditions of the integument. The problems yet to be determined are, what cutaneous affections are amenable to electrical treatment, and what *methods of application* are most likely to be followed by the desired results? It can hardly be expected that constant results will follow haphazard or purely empirical applications, and we conceive that the following, among other elements, must be taken into consideration, namely, the direction of the current employed, the position of the rheophores, the material of which they are composed, as affecting their conductibility, the length of application, and the dose as regards quantity and intensity. It is probable that the dose will be found to have an important influence in determining the result, and recent improvements in the mechanical construction of some of the batteries for both constant and induced currents, permit this to be measured with considerable accuracy. It is to be hoped that experimenters in this field, in announcing results, will record in full the procedures by which they have been obtained.—*Medical Gazette.*

On Elixirs Containing Iron. By W. W. Seay.

A considerable discussion has been carried on regarding the propriety of furnishing the various elixirs for the use of the profession and the public. My own experience has suggested a decided impression in their favor, and, while they can never take the place of similar officinal preparations, they can be made, with proper care, fully equal in medicinal effect, and certainly more agreeable to the taste. Whilst deprecating any fundamental change of our old time-honored and tried remedies, I think many of them could be improved in flavor and appearance, and do our art no discredit. I have known patients absolutely refuse to take many of our tonics long before their use should have been discontinued, simply on the ground of their nauseous, bitter taste. These elixirs are elegant in appearance, and have a decidedly pleasant flavor, which I think is a great consideration where medicines have to be taken for a length of time. As furnished us by large manufacturing firms, my observations are opposed to their usefulness, since in nearly every instance they lack the necessary strength. Certain salts of iron can be added to almost any of our

tinctures (modified somewhat in preparation) without precipitation, and prove as useful as before their addition. I propose furnishing a few recipes, the formulæ of which I have originated and found useful. I do not claim any great scientific achievement for them, but I do think they are preferable to any I have yet seen in use. They retain their *tannic acid and natural combinations apparently unchanged, at all events, without any great chemical disturbance.* It will be observed that alcohol of officinal dilute strength is taken, and the drugs exhausted by it, and *then* sugar is added, which *increases the bulk* without interfering with its *solvent action.* The general full dose being in most cases about one-half fluid ounce, the spirituous strength will amount to only one and one-third fluid drachms of officinal alcohol, which quantity cannot be considered very objectionable. Wines or brandies can be substituted for a portion of alcohol, if deemed advisable, account being taken of the difference of alcoholic strength, the object being to approach as nearly as possible to the menstruum ordered for similar officinal tinctures. Like all tinctures, they are directed to be taken in a little water. The subjoined preparation of Elixir Cinchonæ et Ferri Hypophosphitis, I can specially recommend as an elegant and beautiful one, having taken it myself for some time past, where phosphorus was indicated. About its permanence beyond a few weeks I cannot vouch, as I have not laid by any samples for a great length of time to test it. Hypophosphorous acid has a great affinity for oxygen, and how far the sugar will protect it in the presence of organic matter I am unable to state. I have kept it on hand without change for about two months. The solutions can be kept separately and mixed as wanted, and an elegant preparation insured.

Elixir Cinchonæ et Ferri Hypophosphitis.

Elixir Cinchonæ,	Oj.
Syr. Ferri Hypophosphitis,	f℥ij.
Alcoholis Fortior.,	f℥ss.
Ac. Hypophosphorosi,	f℥iv.

Mix the syrup, acid and alcohol together, and then add to elixir.

The Elixir Cinchonæ designated is that published by me in the June number Am. Journal of Pharmacy, 1871. The Syr. Hypophosphite Iron is that of W. S. Thompson, and the Hypophosphorous Acid that of Parrish, in Parrish's excellent "Treatise on Pharmacy."

The dose for an adult would be about one-half fluid ounce, containing thirteen grains red Peruvian bark, nearly one-half fluid drachm of the Syrup of the Ferrous Hypophosphite, six and one-half minims of ten per cent. hypophosphorous acid.

Elixir Gentianæ et Ferri Chloridi.

Gentian, in coarse powder, - - - -	two troy ounces.
Recent Orange Peel, bruised, - - - -	two troy ounces.
Cardamom Seed, powdered, - - - -	one-half troy ounce.
Alcohol Dil, q. s.	

Percolate s. a. until twenty-one fluid ounces have been obtained. To this add and dissolve

Sacch. Alb. Pulv., - - - - - -	thirty-one av. ounces.
Acid. Muriat. Pur., - - - - - -	fʒij.
Sol. Ferri Chloridi (FeCl), - - - -	fʒiv.

The strength of the elixir is about the same as officinal tinctura gentianæ co.; it contains the equivalent of ten drops officinal tr. ferri chloridi to each fluid ounce.

Any elixir that may be desired with chloride of iron can be made in the same way, substituting other drugs instead of gentian. I will furnish my recipes with other salts of iron, for future numbers of the Journal, as I can find the time. I think if druggists will give these recipes a fair trial, they will find the resulting elixirs will give better results than any that have heretofore been published.—*Am. Jour. Pharmacy.*

Editorial.

The Massacre of the Innocents.

"A voice was heard in Rama, lamentation and great mourning: Rachel bewailing her children, and would not be comforted because they are not."

Perhaps no prophecy was ever uttered, by divine inspiration, of more universal applicability than the above. Significant at that day, in the mouth of Jeremiah, of the sacrifice of all in Judea of two years old and under, on the altar of political jealousy, it is not less so to-day of the continued slaughter of the same class upon the altar of human ignorance and stupidity.

This parallel will readily suggest itself to the mind of the thoughtful reader of the sanitary statistics of this and all other large cities, during the present season of the year.

A glance at the mortality reports of our accomplished Sanitary Superintendent from week to week, while showing the most

favorable results from the efforts at sanitary reform, will also demonstrate the undiminished ratio of infant mortality.

When, in 1867, epidemic cholera numbered among its victims fifteen hundred of our citizens, not only the whole city but the entire country was panic stricken, and, shrinking in terror from the fearful scourge, spared no pains, no expense, to devise and put into operation means for averting the danger. Science and capital co-operated heartily in the work of self-preservation, and to their united efforts we owe, in part at least, our present immunity from this danger.

When, on the other hand, in 1870, the reports of the registrar of vital statistics of Chicago show a mortality amongst children of nearly eight hundred from "cholera infantum" alone, and of about as many more classified under the various heads, diarrhœa, teething, convulsions, summer complaint, dysentery, etc., no fears are awakened, no special measures are concerted, no funds are contributed, to avert this plague; but, weeping apathetically over the graves of the slaughtered innocents, one and all execrate the "hot weather" or "the teeth," as if children could not live in an atmosphere above 90° Fahrenheit, or dentition was a necessarily fatal ordeal which was only exceptionally survived.

How thoroughly true it is that "familiarity breeds contempt." Accustomed yearly to see hundreds of children withering under this blight, it has come to be considered a matter of course, and the ordinary coincidences, heat and dentition, being assumed as the causes, no further effort is made to detect other and more direct agencies in the production of a pestilence whose only result is the death of a few children every summer. The magnitude of the evil is lost sight of in its continuous presence.

While it is doubtless true that a high atmospheric temperature is a factor, and an essential factor, in the production of cholera infantum, a correct appreciation of the subject will never be acquired without a thorough comprehension of concurrent causes. If solar heat be the sole cause of cholera infantum, then the elevation of temperature to a definite degree would be the signal for a universal epidemic, or if dentition were *the cause*, no child would escape while passing through this phase of its development.

Again, we hear it asserted confidently that the excessive infant

mortality from this cause is a result of exposure to foul exhalations from filthy streets, gutters, and alleys, and from the unwholesome atmosphere engendered in the crowded tenements of the poor, but, at the same time, the mortality lists show that cholera infantum is no respecter of localities, and, like its grim general, "pallida mors æquo pulsat pede pauperum tabernas regumque turris." (Hor.)

Since it is thus apparent that neither heat, dentition nor impure air can alone occasion the development of this disease in the infantile organism, and that of these heat is the only constant factor, it follows that some other constant factor or factors must exist, which concurrently with these, with the first invariably, with the other incidentally, operate to produce the diseased condition in question.

What, then, are these other constant factors? Are they susceptible of detection? One of them certainly is so, and that one is Starvation.

It may seem a bold assertion and a libel upon humanity to charge the mothers of our city and of our country with the horrible crime of infanticide, and yet we have no hesitation in asserting that hundreds of children, every year, are starved to death—starved in the midst of plenty—starved through the deplorable ignorance of their parents, and the criminal ignorance of even some physicians.

It would seem to be quite time to understand that the cavity of the stomach, so far as nutrition is concerned, is entirely outside of the organism, and that the filling of this cavity does not necessarily imply the feeding of the organism. Place within this receptacle matters insusceptible of solution in its secretions, and therefore of absorption by its vessels, and the organism is as certainly starved as by the total privation of food.

Now this condition is of daily occurrence within the experience of every physician, and this very frequency of occurrence renders excusable the denunciation of an evil which should be so apparent as to render its denunciation impertinent.

If strict inquiry be made into the history of every case of infantile intestinal disease, one constant antecedent will appear, viz., the ingestion of indigestible matter, and of these, in the vast

majority of cases, the offending substance will be found to be starch in some one of its various forms.

From the food provided by the hand of Omniscience for the human infant, this compound has been entirely excluded, which seems to be a sufficient indication of its unfitness for their nutrition; but man, ever seeking to be wiser than his Maker, striving to improve upon the plan of creation, substitutes for the mother's milk, first that of swill-fed cows, and, next, starch, bread, crackers, arrowroot, sago, rice, farina, and so on through the long category of infantile poisons, and succeeds in producing cholera-infantum, and raising the price of cemetery companies' stock.

If some of the medical gentlemen who are in the habit of prescribing, for their infantile patients, from the above dietary list, will take the trouble to examine the alvine evacuations of the little victims with a microscope, they will perceive, to their great astonishment, doubtless, the starch corpuscles unchanged therein, and will, perhaps, ask how is this? We answer, with Pandams, "he that would have a cake out of the wheat must tarry the grinding"; but a faute de moulin point de farine; and here lies the whole secret in a nutshell, wait for the grinding, wait for the grinders, and when they make their appearance then give farinaceous food, and not until then. Pursue this course, and its wisdom will be demonstrated by the diminished ratio of infant mortality, which will surely follow; continue to neglect it, continue to violate physiology, or, what is the same thing, the laws of nature, and we shall continue to see the mortality of our city rise to the appalling figures of last Saturday, viz., 1-60 of one per cent. per diem, *i. e.* at the rate of 6 per cent. per annum, which would reduce the average longevity to 16 years and 8 months.

W. H.

Cundurango.

From an analysis of this drug, by Dr. Antisell, of Washington, D. C., published in the July number of the *American Journal of Pharmacy*, its alleged therapeutic activity appears to rest upon a very slender foundation.

It is separable mechanically into wood and bark, in the proportion of 50.28 parts per cent. of the former and 49.72 parts of the latter. Of these, the bark is asserted to contain all the medicinal virtues residing in the plant.

Of this latter, 100 parts yielded of water 8 per cent., of mineral salts (ash) 12, and of vegetable substance 80 per cent.

The 80 per cent. of vegetable matter yielded 63.5 per cent. of cellulose, lignin, etc.; of tannin, yellow and brown coloring matters extractive, 12.6 per cent.; of gum and glucose from starch, .5 of 1 per cent.; of yellow resin, soluble in alcohol, 2.7 per cent.; and of fatty matters soluble in ether, and partially so in strong alcohol, .7 of 1 per cent. No crystalline alkaloid or active principle was detected.

The Doctor summarizes his conclusions thus—"Whatever medicinal virtues the plant may possess, must reside either in the yellow resin or the extractive; the former is soluble in alcohol, the latter in water; in the watery decoction, some of the resin is diffused, but the greater portion of the resin is not extracted by the water. The therapeutic position of the plant, judged from analysis, might be among the aromatic bitters."

We fear that the gentleman of this city who has ordered thirty pounds for experiment, will find that he has an elephant on his hands. W. H.

This is what a respectable medical paper says of the book castigated last February in this Journal by *Volta Reeke*, and over the review of which the hypocrites and noodles waxed virtuously bellicose:

"A Panel House Book.—The mania for sensational books seems at last to have affected medical writers also. Beginning with small volumes bearing an innocent question on the title page, we next had 'Frenchy' translations of French authors. And now the climax seems to have been reached in a work which has been sent us lately. We never met with a scribbler before who could write so perfectly de omnibus rebus et quibusdam aliis. As is always the case in such books, exceptional cases are dragged forth as being the rule; everything and everybody is, in the opinion of the writer, wrong, civilization is wrong, men are brutes, women are depraved, girls and boys are extremely wicked, and even little children, who generally are supposed to be mere angels without wings, are by him accused and condemned. The laws of logic seem to be entirely unknown to the writer, for he wages unceasing warfare against them, and he has perfectly succeeded in emancipating himself from them as well as from common sense. In the choice of his illustrations and examples

he has descended into the scums of society, and after gathering up all the filth possible, an unsavory mess is placed before us which smells rank to heaven, and which, introduced with long-winded apologies, he demands of us to accept, as a true representation of the present state of society. In order to catch the general reader, the whole work is infiltrated with moral sentences which spout forth as freely as the tears of the professional mendicant, and are as genuine as the protestations of innocence on the part of a convicted thief. The binding and printing is excellent, but if the very worst of material had been used, we would consider it too good for printing a book which is an outrage upon common decency and an insult to common sense. But the cloven foot cannot be concealed. While groaning over this wicked world, and shedding crocodile tears, the writer smacks his lips at, and rolls each separate piece of filth of this vile compound under his tongue as if it were a delicious morsel. The anonymous scribifax threatens to inflict another book upon society. We suggest, 1, a decent subject; 2, a decent title, and 3, a decent writer, who is not ashamed to publish his name on the title page."—*Physic and Pharmaceutist.*

Recent Deaths.

Prof. Geo. C. Blackman, M.D., Cincinnati.

E. M. Clark, M.D., Detroit.

Died, near Quincy, Ill., July 12th, 1871, of phthisis pulmonalis, Augustus E. Roux, æt. 25, student of Rush Medical College, Chicago, Ill., class of 1868–69.

"The Student's Chart of the Sympathetic Nerve," by RALPH M. TOWNSEND, M D., Assistant Demonstrator of Anatomy in the Jefferson Medical College.

This is a convenient eight-by-ten map, useful to the student for reference, and, costing only a few cents, it is accessible to all. It represents the pre-vertebral ganglia, with their connecting cords; the ganglion of Ribes, ganglion impar, the hypogastric, aortic, solar, cardiac, facial, carotid and cavernous plexuses; the cephalic ganglia, branches of communication between the ganglia, with the cerebral and spinal nerves, and branches of distribution to the viscera, etc. This gives one a very good general idea of the distribution and relations of the different parts of the sympathetic system. The sympathetic nerves are colored yellow; the motor, blue; and the sensory, red.

Charles C. Chatfield & Co., of New Haven, have in press the last two sermons preached by President Woolsey, before retiring from the Presidency of Yale. One of them is his farewell sermon delivered July 2. This was pronounced, by those who heard it, to be the best he ever preached. The other is his last baccalaureate, delivered July 9. They will be printed in elegant style and bound up in paper (60 cents), and in cloth ($1.00).

Errata.

Page 341, in prescription given, read gr. $\frac{1}{3}$ of the strychnia, instead of $\frac{1}{13}$. Please correct with a pen.

In the valuable article on Hypodermic Medication, published last month, on page 421, for "Austin" read *Anstie.* In line 6, page 433, for "inserted" read *inverted.* Be sure and correct this last with a pen, as otherwise accidents might possibly ensue.

It is impossible always to avoid these typographical errors, although we flatter ourselves that the JOURNAL is as free from them as any other periodical extant.

Loot.

Cundurango.

"Cundurango," which we had the honor of introducing to the notice of our readers a few weeks ago, is fairly started on its therapeutical travels under the patronage of the State Department, and for some time to come will furnish a theme for eulogistic admiration in daily newspapers, albeit its miraculous attributes have not, thus far, excited the enthusiasm of the medical press. We are, however, glad to announce that one contribution of a scientific character has been made to its history by Professor Antisell, to whom a specimen was forwarded for examination, the result of which is recorded in the *National Medical Journal.* The absence of root or leaves in the samples sent prevented the determination of the botanical relations of the plant, and the physical description is limited to the following particulars: The stem is "woody, shrubby, and covered by a greenish or ash-gray bark, the former tint being due to a coating of lichens on the surface." The woody fibre is straw-colored and brittle, very slight-

ly aromatic and bitter in taste. The bark is slightly corrugated, easily separable from the stem, having an aromatic, bitter flavor like that of cascarilla, and divisible into three layers; the inner consisting of reticular woody fibre, with starch granules and particles of resin; the middle of fibre and dotted ducts also containing resinous particles; and the outer of bark-cells containing tannic acid and coloring matters. The chemical analysis of the bark showed:—

Moisture,	8
Mineral salts,	12
Vegetable matters,	80
	100

Further examination reduced these vegetable matters to:—

Fatty matter, soluble in ether and partially in strong alcohol,	.7
Yellow resin, soluble in alcohol,	2.7
Starch, gum, and glucose,	.5
Tannin, yellow and brown coloring matter and extractive,	12.6
Cellulose, lignin, etc.,	63.5
	80.

No volatile oil or acid, no alkaloid or active principle, could be obtained. Dr. Antisell classes cundurango among the aromatic bitters, and thinks that whatever medicinal properties it may possess must reside either in the yellow resin or in the extractive, the former of which is soluble in alcohol, the latter in water.

Although, of course, all therapeutical questions must be practically settled by clinical rather than chemical tests, the above showing is not calculated to increase our faith in the triune specificity of cundurango for "cancers, ulcerous affections, and venereal diseases." So many cures for carcinoma have successively been extolled and failed—arsenical paste, acetic acid, gastric juice, carbolic acid, electrolysis, and a host of others—that we fear this dread malady must long remain an *opprobrium medicorum*. It is beyond question that, in some rare cases, spontaneous recovery from cancer occurs; but in such instances the treatment cannot be accepted as influencing the result, and we confess our very strong doubt whether a specific remedy will ever be discovered—if, indeed, there exist a specific for any disease whatsoever. —*Med. Gazette.*

Treatment of Hæmatemesis by Transfusion.

Dr. Carl Michel reports an interesting case of hæmatemesis in which transfusion was successfully employed. The patient was 63 years of age, robust, but had suffered for a few weeks previously from loss of appetite and some eructations. On the 15th of May he became listless and unable to do his work, and went to bed and took

a dose of salts, and for three or four days suffered from diarrhœa. The motions were black. He became very weak, cold sweats appearing on his face. On the 19th, M. Michel saw him. He was lying on his back, very debilitated and anæmic, with strong abdominal pulsation, and pain on the pressure of the abdomen. Whilst examining him the pupil contracted, several drops appeared on the forehead, and the whole body began to tremble. This lasted for a minute. On placing him upon a night stool, three black lumps, the size of a hen's egg, were passed, with a pint of clear blood. The patient then fainted. The diagnosis was then made as being either a rupture of a degenerated atheromatous artery or as chronic ulcer of the stomach. He was ordered ice internally and externally, acetate of lead and opium, and perfect rest. On the following day there was improvement, and in exchange for lead and opium, diluted sulphuric acid was ordered in small doses every two hours. On the 21st, vomiting of blood occurred, and all the symptoms became worse. Infusion of digitalis and nitrate of potash was ordered, and subsequently, as no improvement followed, tinct. ferri acetat. The diet was milk and cold beef tea. On the 22d, he was insensible for three-quarters of an hour, and all his symptoms betokened the near approach of death. Transfusion was determined upon, and performed on the 24th with a simple glass syringe, without the help of a skilled assistant. The blood was taken from the arm of the son, and received to the extent of four ounces into a vessel floating on warm water; here it was whipped and immediately injected into the cephalic vein, which had been previously laid bare and surrounded with a ligature, by which it was lifted out of its bed. The blood was slowly injected, care being taken that no air entered. No sensation of dyspnœa was experienced. During the injection, and after it, he said he felt easier. An hour afterwards he had a rigor, but no fainting or convulsions recurred. He was directed to continue the use of the iron, and to take cold broth with yolk of eggs. On the 26th, he was much better, but some tenesmus occurring, a starch clyster was ordered with six drops of tincture of opium, and from this time he steadily regained his health. Upon the whole it did not appear that more than 1½ oz. were really injected.—(*Berliner Klinische Wochenschrift*, No. 49, 1870.)—*Practitioner.*

Treatment of Sciatica.

Dr. J. Ernest Meiere, M.D., writes to the *Medical Record*:—The following treatment which I have adopted in three cases of sciatica of several years' standing, with the most gratifying results, I publish to the profession, believing by its strict observance we have the means of controlling and of eradicating this disease.

I shall give the history of its treatment in one case, it being the most severe.

Thomas Browning, aged 45, a farmer of Western Maryland, presented himself at my office for treatment, having for the eighteen months previous suffered from sciatica. The entire right lower limb was *atrophied*, and he said he could *span it at the largest part of the thigh with one hand.* He was entirely incapacitated from attending to the duties of his farm, and could barely "hobble" about with the aid of a stick. He was very much discouraged, having previously to my seeing him been under the treatment of several physicians "without much benefit." On my giving him assurance that I could benefit him, he placed himself under my care on the 4th of April, 1870, and continued under my treatment, at intervals, until July, when I saw him professionally for the last time. The treatment was as follows:

He was cupped along the course of the sciatic nerve to the ankle, taking about eight ounces of blood. He was then ordered:

℞ Ol. tiglii gtt. iii.
Fiat in pil. No. 3. Sig., one each night.

Should the pills operate too frequently, their action can be easily checked with tinct. opii.

The following mixture was then given him, which I am confident has a very great controlling influence on the disease.

* ℞ Quiniæ sulph. ℈iss. Vini colch. sem. f℥i.
Potassii iodidi, ℥ss. Aquæ dest. ℥vi.
Sig., teaspoonful three times daily.

The cupping was repeated on the 8th and 23d of the same month, taking about the same quantity of blood as at the first operation. The mixture was continued at intervals up to July, but I should advise that there be no interruption in its administration until the termination of the treatment.

The limb should be subjected to a cold water douche, morning and night, for five or ten minutes, for several months thereafter, and strict attention be paid to the bowels.

The New York Ear Dispensary.

A much-needed charity, whose object is indicated by its title, has been recently opened at No. 69 West 35th Street, near 6th Avenue. It was incorporated in April last, and is under the control of a board of twelve trustees, who have appointed as attending surgeons Drs. Geo. B. Pomeroy and Samuel Sexton.

The importance of the ear as a field of investigation is being generally recognized, and its study is taking rank with the other specialties of the day.

* To prevent flocculent solution, the quinine and iodide of potassa should be dissolved in different vessels, or else a precipitate of the insoluble iodide of quinine will be thrown down, and the medicine be of no effect.

Proceedings of Societies.

NORTH IOWA MEDICAL SOCIETY.

The North Iowa Medical Society held its 11th annual meeting at the office of Dr. Andros, McGregor, on Wednesday, June 7th.

Roll called, and found present — Drs. F. Andros, H. H. Clark, W. C. Lewis, J. S. Green, J. T. H. Scott, D. W. Chase, W. C. Earl and L. Brown, Jr.

Minutes of last meeting read and approved.

Drs. J. W. Curtis, of Decorah; A. B. Hanna, of Elkader; E. R. Zigler and S. E. Robinson, of West Union, were duly elected members of the Society.

Communications were received from Drs. N. H. Knowler, of Hesper, and Lewis L. Hazeltine, of New York City.

The following resolutions were adopted:

Whereas, in the conscientious discharge of duty, Dr. Lewis L. Hazeltine has removed from a sphere of usefulness which he has successfully exercised for the benefit of the public and honor of the profession; and

Whereas, from his first connection with this Society to its close, he was a faithful and efficient member; therefore,

Resolved, That we, the members of the North Iowa Medical Society, hereby express our regret at his loss, and unabated interest in his future welfare.

Resolved, That the Secretary be authorized to place his name upon the list of Honorary Members, and that a copy of our proceedings be at all times sent him.

The President, Dr. Andros, read his annual address, a well-written essay upon Anæsthetics, which brought out much discussion from several members; the discussion to be continued at the next meeting.

Dr. Curtis made a very lengthy report upon the value of the thermometer in the diagnosis and prognosis of disease.

Dr. H. H. Clark exhibited a fibrous tumor weighing three ounces, taken from the brain of a woman, who, although she had been sick for a long time, died so suddenly that foul play and poison were suspected.

There was a lengthy report upon the use and the effects of the hydrate f chloral. Dr. Brown had used it in two cases of puerperal convulsions, and one of partial insanity, caused by the poison of tobacco applied in the form of a poultice to a carbuncle; all three cases yielded promptly to it. Dr. Scott had used it in one, and Dr. Green in many cases of difficult labor, with the best success, causing sleep between pains, and relaxation, more than any other drug. Dr. Chase, of Elkader, reported a case, a patient of his, a physician who, upon his own responsibility, took over one ounce to a

dose without producing any deleterious effects, only thirty hours profound sleep.

Dr. Scott reported an interesting case of strangulated scrotal hernia in a young man whom he and Dr. Andros operated on, and found a large portion of the omentum mortified which they cut away, and ligated the stump, fastened one end of the ligature external to the wound; in a few days it became loose, and was drawn up into the abdomen. Several weeks after, an abscess appeared in the umbilical region, which discharged a few ounces of pus and the ligature. The patient then made a rapid recovery.

Many interesting cases were reported by different members, and opinions expressed.

The Constitution was changed so as to admit Howard county to the territory of the Society.

On motion of Dr. S. E. Robinson, the President was directed to appoint a Committee of one to report upon Surgery, Obstetrics, Practice, and new remedies, and one or two other subjects, to report at the next annual meeting.

The following officers were elected for the ensuing year:

W. C. Lewis, of Clermont, President; Luther Brown, Jr., Postville, Vice President; J. S. Green, Postville, Secretary; H. H. Clark, McGregor, Treasurer; Drs. J. S. Green, J. T. H. Scott and H. H. Clark, Censors.

Drs. F. Andros and J. W. Curtis, were appointed Delegates to the Amer. Med. Ass'n; and Drs. F. Andros, J. W. Curtis and H. H. Clark, Essayists.

The Secretary was authorized to make credentials to any member who would attend the State Medical Society.

Adjourned, to hold the next annual meeting at Postville, on the first Wednesday of June, 1872; also a semi-annual meeting at Decorah, on Wednesday, June 25, 1871.

All regular physicians in good standing are requested to attend.

J. S GREEN, *Secretary.*

DeWITT COUNTY MEDICAL SOCIETY.

The DeWitt County Medical Society met in annual session, at the office of Dr. C. Goodbrake, in Clinton, on Tuesday, the 2d day of May, A. D. 1871, the President, Dr. W. G. Cochran, in the chair.

Present—Drs. W. G. Cochran, J. H. Tyler, J. A. Edmiston, W. W. Adams, Z. H. Madden, B. S. Lewis, C. Goodbrake, J. Wright, and T. Kelley.

The minutes of the last regular meeting were read and approved.

The election of officers being in order, the following named gentlemen were elected for the ensuing year.

President—Dr. C. Goodbrake; Vice President—Dr. J. H. Tyler; Secretary

—Dr. Thomas Kelley; Treasurer—Dr. J. A. Edmiston; Censors—Drs. J. Wright, Z. H. Madden, and Wm. W. Adams.

Delegates to the State Medical Society, (which meets in Peoria, on the third Tuesday in May, 1871,) Drs. C. Goodbrake, Z. H. Madden, J. H. Tyler, and J. A. Edmiston.

On motion, the election of delegates to the American Medical Association was postponed until the regular meeting in January, 1872.

On motion, the Society adjourned, to meet again at one o'clock P. M.

AFTERNOON SESSION.

Society met pursuant to adjournment.

Present—Drs. C. Goodbrake, J. H. Tyler, T. K. Edmiston, J. A. Edmiston, B S. Lewis, J. Wright, W. G. Cochran, Z. H. Madden, T. W. Davis, J. H. Potter, N. Patterson, T. Kelley, and D W. Edmiston. Dr. Laughlin, ot Bloomington, honorary member of this Society, was also present.

By the request of the retiring President, he was excused from delivering his valedictory address until the next regular meeting.

Dr. Wm. W. Adams read a very able essay on Typhoid Fever.

On motion of Dr. T. K. Edmiston, Dr. W. W. Adams was requested to furnish the Society a copy of his essay for publication in the *Chicago Medical Journal.*

Dr. D. W. Edmiston read a very interesting essay on Diseases of the Air Passages.

On motion, Drs. W. W. Adams and D. W. Edmiston were continued as essayists for the next regular meeting.

On motion, the chair appointed Drs. T. K. Edmiston, W. W. Adams and Thomas Kelley, a committee to draft resolutions, expressive of the sense of this Society in regard to the death of the late Dr. Harrison Noble, honorary member of this Society.

On motion of Dr. T. K. Edmiston, the President, Dr. C. Goodbrake, was added to the above committee.

On motion of Dr. W. G. Cochran, Dr. J. A. Edmiston was requested to furnish the Society an essay on Materia Medica and Pharmacy.

On motion, the Chair appointed Drs. Wm. G. Cochran, J. Wright, and T. Kelley, a committee to correspond with Medical Societies of the adjoining counties in regard to forming a District Medical Society.

Dr. Laughlin reported a case of General Paralysis of much interest to the Society.

On motion, Cholera Infantum was made the subject of discussion for the next regular meeting.

On motion, the Secretary was requested to furnish the editors of both of the Clinton papers, and the *Chicago Medical Journal*, with copies of the proceedings for publication.

On motion, the Society adjourned, to meet in Marion on the second Tuesday in July next.

THOMAS KELLEY, *Sec.*

to the exfoliation of epidermis. Sensation, tested by the æsthesiometer, indicated equal tactility as compared with corresponding points upon the other leg, but there was increased sensitiveness to pain, especially marked in those parts which were most profoundly altered. The temperature of the parts, as ascertained by a Seguin's surface thermometer, was 58° F. behind the malleolus; 74° at the middle; and 81° at the upper part of the leg. Corresponding points upon the healthy limb indicated 74½°, 78°, and 81° respectively. Above the knee the thermometer registered 89° on each limb. Four and a half inches above the ankle, the left leg measured 7½ inches in circumference, and the right 8 inches. This was apparently due to muscular atrophy from want of use.

Treatment was commenced upon the 20th of December by the application of the positive rheophore to the upper part of the left leg, and the negative was then moved slowly over the affected portions. It may be proper to state that at this time we were not aware of Fieber's case, or that galvanism had ever been applied in the affection we were treating. The applications lasted from five to ten minutes at each sitting, and were repeated every other day. Perceptible improvement was manifested after the fifth or sixth application of the continuous current. Improvement continued, and the patient was presented at the January and February meetings of the New York Dermatological Society. By the middle of March, the skin above the malleolus had resumed its normal aspect, and was freely movable upon the cellular tissue. The portion which lay immediately over the malleolus was also freely movable over the bone, and its cicatricial appearance was somewhat modified, having lost to some extent its dead white color. Considering the dermic condition as substantially well, we commenced Faradization of the gastrocnemius and other muscles. This was continued for a few days only, as the patient felt herself so much recovered that she did not deem it worth while to attend the dispensary any longer.

The battery employed consisted of a combination of thirty-two Smee's elements of small size, twenty-four of which gave *as intense a current* as the patient could bear without discomfort. It may be stated that galvanization of the sympathetic was tried on one or two occasions, but was not continued for fear of complicating the treatment. No medicines of any kind were given.

Clinical observation of the effects of electric currents in morbid conditions is so often at variance with the results of electro-physiological experiment, that very little assistance is afforded us in any endeavor to explain the former by a knowledge of the phenomena of the latter. We must therefore be excused from attempting to explain the *rationale* of the treatment employed in the cases recorded above. One fact, however, seems to be

demonstrated, at least to the satisfaction of myself and of those who have witnessed the employment of electricity in cutaneous affections, and that is, that electrical currents, both primary and induced, possess in an eminent degree the power of modifying for the better certain morbid conditions of the integument. The problems yet to be determined are, what cutaneous affections are amenable to electrical treatment, and what *methods of application* are most likely to be followed by the desired results? It can hardly be expected that constant results will follow haphazard or purely empirical applications, and we conceive that the following, among other elements, must be taken into consideration, namely, the direction of the current employed, the position of the rheophores, the material of which they are composed, as affecting their conductibility, the length of application, and the dose as regards quantity and intensity. It is probable that the dose will be found to have an important influence in determining the result, and recent improvements in the mechanical construction of some of the batteries for both constant and induced currents, permit this to be measured with considerable accuracy. It is to be hoped that experimenters in this field, in announcing results, will record in full the procedures by which they have been obtained.—*Medical Gazette.*

On Elixirs Containing Iron. By W. W. Seay.

A considerable discussion has been carried on regarding the propriety of furnishing the various elixirs for the use of the profession and the public. My own experience has suggested a decided impression in their favor, and, while they can never take the place of similar officinal preparations, they can be made, with proper care, fully equal in medicinal effect, and certainly more agreeable to the taste. Whilst deprecating any fundamental change of our old time-honored and tried remedies, I think many of them could be improved in flavor and appearance, and do our art no discredit. I have known patients absolutely refuse to take many of our tonics long before their use should have been discontinued, simply on the ground of their nauseous, bitter taste. These elixirs are elegant in appearance, and have a decidedly pleasant flavor, which I think is a great consideration where medicines have to be taken for a length of time. As furnished us by large manufacturing firms, my observations are opposed to their usefulness, since in nearly every instance they lack the necessary strength. Certain salts of iron can be added to almost any of our

tinctures (modified somewhat in preparation) without precipitation, and prove as useful as before their addition. I propose furnishing a few recipes, the formulæ of which I have originated and found useful. I do not claim any great scientific achievement for them, but I do think they are preferable to any I have yet seen in use. They retain their *tannic acid and natural combinations apparently unchanged, at all events, without any great chemical disturbance.* It will be observed that alcohol of officinal dilute strength is taken, and the drugs exhausted by it, and *then* sugar is added, which *increases the bulk* without interfering with its *solvent action.* The general full dose being in most cases about one-half fluid ounce, the spirituous strength will amount to only one and one-third fluid drachms of officinal alcohol, which quantity cannot be considered very objectionable. Wines or brandies can be substituted for a portion of alcohol, if deemed advisable, account being taken of the difference of alcoholic strength, the object being to approach as nearly as possible to the menstruum ordered for similar officinal tinctures. Like all tinctures, they are directed to be taken in a little water. The subjoined preparation of Elixir Cinchonæ et Ferri Hypophosphitis, I can specially recommend as an elegant and beautiful one, having taken it myself for some time past, where phosphorus was indicated. About its permanence beyond a few weeks I cannot vouch, as I have not laid by any samples for a great length of time to test it. Hypophosphorous acid has a great affinity for oxygen, and how far the sugar will protect it in the presence of organic matter I am unable to state. I have kept it on hand without change for about two months. The solutions can be kept separately and mixed as wanted, and an elegant preparation insured.

Elixir Cinchonæ et Ferri Hypophosphitis.

Elixir Cinchonæ,	Oj.
Syr. Ferri Hypophosphitis,	f℥ij.
Alcoholis Fortior.,	f℥ss.
Ac. Hypophosphorosi,	f℥iv.

Mix the syrup, acid and alcohol together, and then add to elixir.

The Elixir Cinchonæ designated is that published by me in the June number Am. Journal of Pharmacy, 1871. The Syr. Hypophosphite Iron is that of W. S. Thompson, and the Hypophosphorous Acid that of Parrish, in Parrish's excellent "Treatise on Pharmacy."

The dose for an adult would be about one-half fluid ounce, containing thirteen grains red Peruvian bark, nearly one-half fluid drachm of the Syrup of the Ferrous Hypophosphite, six and one-half minims of ten per cent. hypophosphorous acid.

Elixir Gentianæ et Ferri Chloridi.

Gentian, in coarse powder,	two troy ounces.
Recent Orange Peel, bruised,	two troy ounces.
Cardamom Seed, powdered,	one-half troy ounce.
Alcohol Dil, q. s.	

Percolate s. a. until twenty-one fluid ounces have been obtained. To this add and dissolve

Sacch. Alb. Pulv.,	thirty-one av. ounces.
Acid. Muriat. Pur.,	f℥ij.
Sol. Ferri Chloridi (FeCl),	f℥iv.

The strength of the elixir is about the same as officinal tinctura gentianæ co.; it contains the equivalent of ten drops officinal tr. ferri chloridi to each fluid ounce.

Any elixir that may be desired with chloride of iron can be made in the same way, substituting other drugs instead of gentian. I will furnish my recipes with other salts of iron, for future numbers of the Journal, as I can find the time. I think if druggists will give these recipes a fair trial, they will find the resulting elixirs will give better results than any that have heretofore been published.—*Am. Jour. Pharmacy.*

Editorial.

The Massacre of the Innocents.

"A voice was heard in Rama, lamentation and great mourning: Rachel bewailing her children, and would not be comforted because they are not."

Perhaps no prophecy was ever uttered, by divine inspiration, of more universal applicability than the above. Significant at that day, in the mouth of Jeremiah, of the sacrifice of all in Judea of two years old and under, on the altar of political jealousy, it is not less so to-day of the continued slaughter of the same class upon the altar of human ignorance and stupidity.

This parallel will readily suggest itself to the mind of the thoughtful reader of the sanitary statistics of this and all other large cities, during the present season of the year.

A glance at the mortality reports of our accomplished Sanitary Superintendent from week to week, while showing the most

favorable results from the efforts at sanitary reform, will also demonstrate the undiminished ratio of infant mortality.

When, in 1867, epidemic cholera numbered among its victims fifteen hundred of our citizens, not only the whole city but the entire country was panic stricken, and, shrinking in terror from the fearful scourge, spared no pains, no expense, to devise and put into operation means for averting the danger. Science and capital co-operated heartily in the work of self-preservation, and to their united efforts we owe, in part at least, our present immunity from this danger.

When, on the other hand, in 1870, the reports of the registrar of vital statistics of Chicago show a mortality amongst children of nearly eight hundred from "cholera infantum" alone, and of about as many more classified under the various heads, diarrhœa, teething, convulsions, summer complaint, dysentery, etc., no fears are awakened, no special measures are concerted, no funds are contributed, to avert this plague; but, weeping apathetically over the graves of the slaughtered innocents, one and all execrate the "hot weather" or "the teeth," as if children could not live in an atmosphere above 90° Fahrenheit, or dentition was a necessarily fatal ordeal which was only exceptionally survived.

How thoroughly true it is that "familiarity breeds contempt." Accustomed yearly to see hundreds of children withering under this blight, it has come to be considered a matter of course, and the ordinary coincidences, heat and dentition, being assumed as the causes, no further effort is made to detect other and more direct agencies in the production of a pestilence whose only result is the death of a few children every summer. The magnitude of the evil is lost sight of in its continuous presence.

While it is doubtless true that a high atmospheric temperature is a factor, and an essential factor, in the production of cholera infantum, a correct appreciation of the subject will never be acquired without a thorough comprehension of concurrent causes. If solar heat be the sole cause of cholera infantum, then the elevation of temperature to a definite degree would be the signal for a universal epidemic, or if dentition were *the cause*, no child would escape while passing through this phase of its development.

Again, we hear it asserted confidently that the excessive infant

mortality from this cause is a result of exposure to foul exhalations from filthy streets, gutters, and alleys, and from the unwholesome atmosphere engendered in the crowded tenements of the poor, but, at the same time, the mortality lists show that cholera infantum is no respecter of localities, and, like its grim general, "pallida mors æquo pulsat pede pauperum tabernas regumque turris." (Hor.)

Since it is thus apparent that neither heat, dentition nor impure air can alone occasion the development of this disease in the infantile organism, and that of these heat is the only constant factor, it follows that some other constant factor or factors must exist, which concurrently with these, with the first invariably, with the other incidentally, operate to produce the diseased condition in question.

What, then, are these other constant factors? Are they susceptible of detection? One of them certainly is so, and that one is Starvation.

It may seem a bold assertion and a libel upon humanity to charge the mothers of our city and of our country with the horrible crime of infanticide, and yet we have no hesitation in asserting that hundreds of children, every year, are starved to death—starved in the midst of plenty—starved through the deplorable ignorance of their parents, and the criminal ignorance of even some physicians.

It would seem to be quite time to understand that the cavity of the stomach, so far as nutrition is concerned, is entirely outside of the organism, and that the filling of this cavity does not necessarily imply the feeding of the organism. Place within this receptacle matters insusceptible of solution in its secretions, and therefore of absorption by its vessels, and the organism is as certainly starved as by the total privation of food.

Now this condition is of daily occurrence within the experience of every physician, and this very frequency of occurrence renders excusable the denunciation of an evil which should be so apparent as to render its denunciation impertinent.

If strict inquiry be made into the history of every case of infantile intestinal disease, one constant antecedent will appear, viz., the ingestion of indigestible matter, and of these, in the vast

majority of cases, the offending substance will be found to be starch in some one of its various forms.

From the food provided by the hand of Omniscience for the human infant, this compound has been entirely excluded, which seems to be a sufficient indication of its unfitness for their nutrition; but man, ever seeking to be wiser than his Maker, striving to improve upon the plan of creation, substitutes for the mother's milk, first that of swill-fed cows, and, next, starch, bread, crackers, arrowroot, sago, rice, farina, and so on through the long category of infantile poisons, and succeeds in producing cholera-infantum, and raising the price of cemetery companies' stock.

If some of the medical gentlemen who are in the habit of prescribing, for their infantile patients, from the above dietary list, will take the trouble to examine the alvine evacuations of the little victims with a microscope, they will perceive, to their great astonishment, doubtless, the starch corpuscles unchanged therein, and will, perhaps, ask how is this? We answer, with Pandams, "he that would have a cake out of the wheat must tarry the grinding"; but a faute de moulin point de farine; and here lies the whole secret in a nutshell, wait for the grinding, wait for the grinders, and when they make their appearance then give farinaceous food, and not until then. Pursue this course, and its wisdom will be demonstrated by the diminished ratio of infant mortality, which will surely follow; continue to neglect it, continue to violate physiology, or, what is the same thing, the laws of nature, and we shall continue to see the mortality of our city rise to the appalling figures of last Saturday, viz., 1-60 of one per cent. per diem, *i. e.* at the rate of 6 per cent. per annum, which would reduce the average longevity to 16 years and 8 months.

W. H.

Cundurango.

From an analysis of this drug, by Dr. Antisell, of Washington, D. C., published in the July number of the *American Journal of Pharmacy*, its alleged therapeutic activity appears to rest upon a very slender foundation.

It is separable mechanically into wood and bark, in the proportion of 50.28 parts per cent. of the former and 49.72 parts of the latter. Of these, the bark is asserted to contain all the medicinal virtues residing in the plant.

Of this latter, 100 parts yielded of water 8 per cent., of mineral salts (ash) 12, and of vegetable substance 80 per cent.

The 80 per cent. of vegetable matter yielded 63.5 per cent. of cellulose, lignin, etc.; of tannin, yellow and brown coloring matters extractive, 12.6 per cent.; of gum and glucose from starch, .5 of 1 per cent.; of yellow resin, soluble in alcohol, 2.7 per cent.; and of fatty matters soluble in ether, and partially so in strong alcohol, .7 of 1 per cent. No crystalline alkaloid or active principle was detected.

The Doctor summarizes his conclusions thus—"Whatever medicinal virtues the plant may possess, must reside either in the yellow resin or the extractive; the former is soluble in alcohol, the latter in water; in the watery decoction, some of the resin is diffused, but the greater portion of the resin is not extracted by the water. The therapeutic position of the plant, judged from analysis, might be among the aromatic bitters."

We fear that the gentleman of this city who has ordered thirty pounds for experiment, will find that he has an elephant on his hands. W. H.

This is what a respectable medical paper says of the book castigated last February in this Journal by *Volta Reeke*, and over the review of which the hypocrites and noodles waxed virtuously bellicose:

"A Panel House Book.—The mania for sensational books seems at last to have affected medical writers also. Beginning with small volumes bearing an innocent question on the title page, we next had 'Frenchy' translations of French authors. And now the climax seems to have been reached in a work which has been sent us lately. We never met with a scribbler before who could write so perfectly de omnibus rebus et quibusdam aliis. As is always the case in such books, exceptional cases are dragged forth as being the rule; everything and everybody is, in the opinion of the writer, wrong, civilization is wrong, men are brutes, women are depraved, girls and boys are extremely wicked, and even little children, who generally are supposed to be mere angels without wings, are by him accused and condemned. The laws of logic seem to be entirely unknown to the writer, for he wages unceasing warfare against them, and he has perfectly succeeded in emancipating himself from them as well as from common sense. In the choice of his illustrations and examples

he has descended into the scums of society, and after gathering up all the filth possible, an unsavory mess is placed before us which smells rank to heaven, and which, introduced with long-winded apologies, he demands of us to accept, as a true representation of the present state of society. In order to catch the general reader, the whole work is infiltrated with moral sentences which spout forth as freely as the tears of the professional mendicant, and are as genuine as the protestations of innocence on the part of a convicted thief. The binding and printing is excellent, but if the very worst of material had been used, we would consider it too good for printing a book which is an outrage upon common decency and an insult to common sense. But the cloven foot cannot be concealed. While groaning over this wicked world, and shedding crocodile tears, the writer smacks his lips at, and rolls each separate piece of filth of this vile compound under his tongue as if it were a delicious morsel. The anonymous scribifax threatens to inflict another book upon society. We suggest, 1, a decent subject; 2, a decent title, and 3, a decent writer, who is not ashamed to publish his name on the title page."—*Physic and Pharmaceutist.*

Recent Deaths.

Prof. Geo. C. Blackman, M.D., Cincinnati.

E. M. Clark, M.D., Detroit.

Died, near Quincy, Ill., July 12th, 1871, of phthisis pulmonalis, Augustus E. Roux, æt. 25, student of Rush Medical College, Chicago, Ill., class of 1868–69.

"The Student's Chart of the Sympathetic Nerve," by RALPH M. TOWNSEND, M D., Assistant Demonstrator of Anatomy in the Jefferson Medical College.

This is a convenient eight-by-ten map, useful to the student for reference, and, costing only a few cents, it is accessible to all. It represents the pre-vertebral ganglia, with their connecting cords; the ganglion of Ribes, ganglion impar, the hypogastric, aortic, solar, cardiac, facial, carotid and cavernous plexuses; the cephalic ganglia, branches of communication between the ganglia, with the cerebral and spinal nerves, and branches of distribution to the viscera, etc. This gives one a very good general idea of the distribution and relations of the different parts of the sympathetic system. The sympathetic nerves are colored yellow; the motor, blue; and the sensory, red.

Charles C. Chatfield & Co., of New Haven, have in press the last two sermons preached by President Woolsey, before retiring from the Presidency of Yale. One of them is his farewell sermon delivered July 2. This was pronounced, by those who heard it, to be the best he ever preached. The other is his last baccalaureate, delivered July 9. They will be printed in elegant style and bound up in paper (60 cents), and in cloth ($1.00).

Errata.

Page 341, in prescription given, read gr. $\frac{1}{3}$ of the strychnia, instead of $\frac{1}{13}$. Please correct with a pen.

In the valuable article on Hypodermic Medication, published last month, on page 421, for "Austin" read *Anstie.* In line 6, page 433, for "inserted" read *inverted.* Be sure and correct this last with a pen, as otherwise accidents might possibly ensue.

It is impossible always to avoid these typographical errors, although we flatter ourselves that the JOURNAL is as free from them as any other periodical extant.

Loot.

Cundurango.

"Cundurango," which we had the honor of introducing to the notice of our readers a few weeks ago, is fairly started on its therapeutical travels under the patronage of the State Department, and for some time to come will furnish a theme for eulogistic admiration in daily newspapers, albeit its miraculous attributes have not, thus far, excited the enthusiasm of the medical press. We are, however, glad to announce that one contribution of a scientific character has been made to its history by Professor Antisell, to whom a specimen was forwarded for examination, the result of which is recorded in the *National Medical Journal.* The absence of root or leaves in the samples sent prevented the determination of the botanical relations of the plant, and the physical description is limited to the following particulars: The stem is "woody, shrubby, and covered by a greenish or ash-gray bark, the former tint being due to a coating of lichens on the surface." The woody fibre is straw-colored and brittle, very slight-

ly aromatic and bitter in taste. The bark is slightly corrugated, easily separable from the stem, having an aromatic, bitter flavor like that of cascarilla, and divisible into three layers; the inner consisting of reticular woody fibre, with starch granules and particles of resin; the middle of fibre and dotted ducts also containing resinous particles; and the outer of bark-cells containing tannic acid and coloring matters. The chemical analysis of the bark showed:—

Moisture,	8
Mineral salts,	12
Vegetable matters,	80
	100

Further examination reduced these vegetable matters to:—

Fatty matter, soluble in ether and partially in strong alcohol,	.7
Yellow resin, soluble in alcohol,	2.7
Starch, gum, and glucose,	.5
Tannin, yellow and brown coloring matter and extractive,	12.6
Cellulose, lignin, etc.,	63.5
	80.

No volatile oil or acid, no alkaloid or active principle, could be obtained. Dr. Antisell classes cundurango among the aromatic bitters, and thinks that whatever medicinal properties it may possess must reside either in the yellow resin or in the extractive, the former of which is soluble in alcohol, the latter in water.

Although, of course, all therapeutical questions must be practically settled by clinical rather than chemical tests, the above showing is not calculated to increase our faith in the triune specificity of cundurango for "cancers, ulcerous affections, and venereal diseases." So many cures for carcinoma have successively been extolled and failed—arsenical paste, acetic acid, gastric juice, carbolic acid, electrolysis, and a host of others—that we fear this dread malady must long remain an *opprobrium medicorum.* It is beyond question that, in some rare cases, spontaneous recovery from cancer occurs; but in such instances the treatment cannot be accepted as influencing the result, and we confess our very strong doubt whether a specific remedy will ever be discovered—if, indeed, there exist a specific for any disease whatsoever. —*Med. Gazette.*

Treatment of Hæmatemesis by Transfusion.

Dr. Carl Michel reports an interesting case of hæmatemesis in which transfusion was successfully employed. The patient was 63 years of age, robust, but had suffered for a few weeks previously from loss of appetite and some eructations. On the 15th of May he became listless and unable to do his work, and went to bed and took

a dose of salts, and for three or four days suffered from diarrhœa. The motions were black. He became very weak, cold sweats appearing on his face. On the 19th, M. Michel saw him. He was lying on his back, very debilitated and anæmic, with strong abdominal pulsation, and pain on the pressure of the abdomen. Whilst examining him the pupil contracted, several drops appeared on the forehead, and the whole body began to tremble. This lasted for a minute. On placing him upon a night stool, three black lumps, the size of a hen's egg, were passed, with a pint of clear blood. The patient then fainted. The diagnosis was then made as being either a rupture of a degenerated atheromatous artery or as chronic ulcer of the stomach. He was ordered ice internally and externally, acetate of lead and opium, and perfect rest. On the following day there was improvement, and in exchange for lead and opium, diluted sulphuric acid was ordered in small doses every two hours. On the 21st, vomiting of blood occurred, and all the symptoms became worse. Infusion of digitalis and nitrate of potash was ordered, and subsequently, as no improvement followed, tinct. ferri acetat. The diet was milk and cold beef tea. On the 22d, he was insensible for three-quarters of an hour, and all his symptoms betokened the near approach of death. Transfusion was determined upon, and performed on the 24th with a simple glass syringe, without the help of a skilled assistant. The blood was taken from the arm of the son, and received to the extent of four ounces into a vessel floating on warm water; here it was whipped and immediately injected into the cephalic vein, which had been previously laid bare and surrounded with a ligature, by which it was lifted out of its bed. The blood was slowly injected, care being taken that no air entered. No sensation of dyspnœa was experienced. During the injection, and after it, he said he felt easier. An hour afterwards he had a rigor, but no fainting or convulsions recurred. He was directed to continue the use of the iron, and to take cold broth with yolk of eggs. On the 26th, he was much better, but some tenesmus occurring, a starch clyster was ordered with six drops of tincture of opium, and from this time he steadily regained his health. Upon the whole it did not appear that more than 1½ oz. were really injected.—(*Berliner Klinische Wochenschrift*, No. 49, 1870.)—*Practitioner.*

Treatment of Sciatica.

Dr. J. Ernest Meiere, M.D., writes to the *Medical Record*:—The following treatment which I have adopted in three cases of sciatica of several years' standing, with the most gratifying results, I publish to the profession, believing by its strict observance we have the means of controlling and of eradicating this disease.

I shall give the history of its treatment in one case, it being the most severe.

Thomas Browning, aged 45, a farmer of Western Maryland, presented himself at my office for treatment, having for the eighteen months previous suffered from sciatica. The entire right lower limb was *atrophied*, and he said he could *span it at the largest part of the thigh with one hand.* He was entirely incapacitated from attending to the duties of his farm, and could barely "hobble" about with the aid of a stick. He was very much discouraged, having previously to my seeing him been under the treatment of several physicians "without much benefit." On my giving him assurance that I could benefit him, he placed himself under my care on the 4th of April, 1870, and continued under my treatment, at intervals, until July, when I saw him professionally for the last time. The treatment was as follows:

He was cupped along the course of the sciatic nerve to the ankle, taking about eight ounces of blood. He was then ordered:

℞ Ol. tiglii gtt. iii.
Fiat in pil. No. 3. Sig., one each night.

Should the pills operate too frequently, their action can be easily checked with tinct. opii.

The following mixture was then given him, which I am confident has a very great controlling influence on the disease.

* ℞ Quiniæ sulph. ℈iss. Vini colch. sem. f℥i.
Potassii iodidi, ℥ss. Aquæ dest. ℥vi.
Sig., teaspoonful three times daily.

The cupping was repeated on the 8th and 23d of the same month, taking about the same quantity of blood as at the first operation. The mixture was continued at intervals up to July, but I should advise that there be no interruption in its administration until the termination of the treatment.

The limb should be subjected to a cold water douche, morning and night, for five or ten minutes, for several months thereafter, and strict attention be paid to the bowels.

The New York Ear Dispensary.

A much-needed charity, whose object is indicated by its title, has been recently opened at No. 69 West 35th Street, near 6th Avenue. It was incorporated in April last, and is under the control of a board of twelve trustees, who have appointed as attending surgeons Drs. Geo. B. Pomeroy and Samuel Sexton.

The importance of the ear as a field of investigation is being generally recognized, and its study is taking rank with the other specialties of the day.

* To prevent flocculent solution, the quinine and iodide of potassa should be dissolved in different vessels, or else a precipitate of the insoluble iodide of quinine will be thrown down, and the medicine be of no effect.

Proceedings of Societies.

NORTH IOWA MEDICAL SOCIETY.

The North Iowa Medical Society held its 11th annual meeting at the office of Dr. Andros, McGregor, on Wednesday, June 7th.

Roll called, and found present — Drs. F. Andros, H. H. Clark, W. C. Lewis, J. S. Green, J. T. H. Scott, D. W. Chase, W. C. Earl and L. Brown, Jr.

Minutes of last meeting read and approved.

Drs. J. W. Curtis, of Decorah; A. B. Hanna, of Elkader; E. R. Zigler and S. E. Robinson, of West Union, were duly elected members of the Society.

Communications were received from Drs. N. H. Knowler, of Hesper, and Lewis L. Hazeltine, of New York City.

The following resolutions were adopted:

Whereas, in the conscientious discharge of duty, Dr. Lewis L. Hazeltine has removed from a sphere of usefulness which he has successfully exercised for the benefit of the public and honor of the profession; and

Whereas, from his first connection with this Society to its close, he was a faithful and efficient member; therefore,

Resolved, That we, the members of the North Iowa Medical Society, hereby express our regret at his loss, and unabated interest in his future welfare.

Resolved, That the Secretary be authorized to place his name upon the list of Honorary Members, and that a copy of our proceedings be at all times sent him.

The President, Dr. Andros, read his annual address, a well-written essay upon Anæsthetics, which brought out much discussion from several members; the discussion to be continued at the next meeting.

Dr. Curtis made a very lengthy report upon the value of the thermometer in the diagnosis and prognosis of disease.

Dr. H. H. Clark exhibited a fibrous tumor weighing three ounces, taken from the brain of a woman, who, although she had been sick for a long time, died so suddenly that foul play and poison were suspected.

There was a lengthy report upon the use and the effects of the hydrate f chloral. Dr. Brown had used it in two cases of puerperal convulsions, and one of partial insanity, caused by the poison of tobacco applied in the form of a poultice to a carbuncle; all three cases yielded promptly to it. Dr. Scott had used it in one, and Dr. Green in many cases of difficult labor, with the best success, causing sleep between pains, and relaxation, more than any other drug. Dr. Chase, of Elkader, reported a case, a patient of his, a physician who, upon his own responsibility, took over one ounce to a

dose without producing any deleterious effects, only thirty hours profound sleep.

Dr. Scott reported an interesting case of strangulated scrotal hernia in a young man whom he and Dr. Andros operated on, and found a large portion of the omentum mortified which they cut away, and ligated the stump, fastened one end of the ligature external to the wound; in a few days it became loose, and was drawn up into the abdomen. Several weeks after, an abscess appeared in the umbilical region, which discharged a few ounces of pus and the ligature. The patient then made a rapid recovery.

Many interesting cases were reported by different members, and opinions expressed.

The Constitution was changed so as to admit Howard county to the territory of the Society.

On motion of Dr. S. E. Robinson, the President was directed to appoint a Committee of one to report upon Surgery, Obstetrics, Practice, and new remedies, and one or two other subjects, to report at the next annual meeting.

The following officers were elected for the ensuing year:

W. C. Lewis, of Clermont, President; Luther Brown, Jr., Postville, Vice President; J. S. Green, Postville, Secretary; H. H. Clark, McGregor, Treasurer; Drs. J. S. Green, J. T. H. Scott and H. H. Clark, Censors.

Drs. F. Andros and J. W. Curtis, were appointed Delegates to the Amer. Med. Ass'n; and Drs. F. Andros, J. W. Curtis and H. H. Clark, Essayists.

The Secretary was authorized to make credentials to any member who would attend the State Medical Society.

Adjourned, to hold the next annual meeting at Postville, on the first Wednesday of June, 1872; also a semi-annual meeting at Decorah, on Wednesday, June 25, 1871.

All regular physicians in good standing are requested to attend.

J. S GREEN, *Secretary.*

DeWITT COUNTY MEDICAL SOCIETY.

The DeWitt County Medical Society met in annual session, at the office of Dr. C. Goodbrake, in Clinton, on Tuesday, the 2d day of May, A. D. 1871, the President, Dr. W. G. Cochran, in the chair.

Present—Drs. W. G. Cochran, J. H. Tyler, J. A. Edmiston, W. W. Adams, Z. H. Madden, B. S. Lewis, C. Goodbrake, J. Wright, and T. Kelley.

The minutes of the last regular meeting were read and approved.

The election of officers being in order, the following named gentlemen were elected for the ensuing year.

President—Dr. C. Goodbrake; Vice President—Dr. J. H. Tyler; Secretary

—Dr. Thomas Kelley; Treasurer—Dr. J. A. Edmiston; Censors—Drs. J. Wright, Z. H. Madden, and Wm. W. Adams.

Delegates to the State Medical Society, (which meets in Peoria, on the third Tuesday in May, 1871,) Drs. C. Goodbrake, Z. H. Madden, J. H. Tyler, and J. A. Edmiston.

On motion, the election of delegates to the American Medical Association was postponed until the regular meeting in January, 1872.

On motion, the Society adjourned, to meet again at one o'clock P. M.

AFTERNOON SESSION.

Society met pursuant to adjournment.

Present—Drs. C. Goodbrake, J. H. Tyler, T. K. Edmiston, J. A. Edmiston, B S. Lewis, J. Wright, W. G. Cochran, Z. H. Madden, T. W. Davis, J. H. Potter, N. Patterson, T. Kelley, and D W. Edmiston. Dr. Laughlin, of Bloomington, honorary member of this Society, was also present.

By the request of the retiring President, he was excused from delivering his valedictory address until the next regular meeting.

Dr. Wm. W. Adams read a very able essay on Typhoid Fever.

On motion of Dr. T. K. Edmiston, Dr. W. W. Adams was requested to furnish the Society a copy of his essay for publication in the *Chicago Medical Journal.*

Dr. D. W. Edmiston read a very interesting essay on Diseases of the Air Passages.

On motion, Drs. W. W. Adams and D. W. Edmiston were continued as essayists for the next regular meeting.

On motion, the chair appointed Drs. T. K. Edmiston, W. W. Adams and Thomas Kelley, a committee to draft resolutions, expressive of the sense of this Society in regard to the death of the late Dr. Harrison Noble, honorary member of this Society.

On motion of Dr. T. K. Edmiston, the President, Dr. C. Goodbrake, was added to the above committee.

On motion of Dr. W. G. Cochran, Dr. J. A. Edmiston was requested to furnish the Society an essay on Materia Medica and Pharmacy.

On motion, the Chair appointed Drs. Wm. G. Cochran, J. Wright, and T. Kelley, a committee to correspond with Medical Societies of the adjoining counties in regard to forming a District Medical Society.

Dr. Laughlin reported a case of General Paralysis of much interest to the Society.

On motion, Cholera Infantum was made the subject of discussion for the next regular meeting.

On motion, the Secretary was requested to furnish the editors of both of the Clinton papers, and the *Chicago Medical Journal*, with copies of the proceedings for publication.

On motion, the Society adjourned, to meet in Marion on the second Tuesday in July next.

THOMAS KELLEY, *Sec.*

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery, and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—SEPTEMBER, 1871.—No. 9.

Original Communications.

ARTICLE I.—*Water: Free Heat and Water as Remedial Agents.*

By T. CURTIS SMITH, M.D., Middleport, O.

In the March number of the Northwestern Medical and Surgical Journal, published at St. Paul, Minn., is an article from Dr. Z. C. McElroy of Zanesville, O., on the "Therapeutic Effects of Free Heat and Water—Flooding the System with Hot Water."

The title and idea at first seem novel, but the remedy is of greater importance in a certain class of diseases (?) or pathological conditions, than would, without consideration, be supposed.

When we consider that fully four fifths of the earth's composition is water, and that it forms by far the largest portion of the vegetable kingdom from which man is supplied with food either *directly* or *indirectly*,* we may have some conception of its importance in forming a large part of the composition of the human organism.

* Indirectly, *i.e.* the animal food we eat is formed in animals by virtue of their appropriation of vegetable food for their sustenance and growth. We are thus supplied with our most highly organized food.

In the physical organism of the human system, water constitutes, of the blood alone, sixteen-twentieths,* and of the whole system nearly nineteen-twentieths. It is not strange, then, that man and animals die much sooner for the want of water alone than for the want of food.

All the secretions are composed very largely of water, as bile, gastric juice, perspiration, etc., and it is the agent which, holding in solution or mixture, by *transudation*, carries nutriment and remedial agents through the system to every part supplied with the circulating fluids, and also carries from every part, however remote or near, the molecular debris of tissue waste, and poisonous material of whatever kind. These are carried out of the system by the excreting organs, water being their principal (in bulk) ingredient.

Much of the so-called mineral water is purer and freer from mineral constituents than our ordinary well or spring water, but a certain class of patients, small drinkers at home, visit these springs and are benefited, simply because at home they did not use enough of this natural element of their bodies, and their physician, giving the subject no thought, did not advise them to do so, while at the springs they drink largely, and the water filters out of their blood and tissues the retained excess of salts and molecular debris of tissue waste. The system thus freed of the baneful effects produced by poisonous elements remaining, especially decaying animal matter, floating in the blood and fluids through the system in microscopic molecular forms, the patient "feels better," and is better.

A notorious instance of this kind is that of the great reformer, Martin Luther.† "The testimony of experience to the use of water as a remedial agent, is shown in the patronage bestowed from the earliest times upon numerous springs whose saline constituents are even less abundant than those of ordinary drinking water. Pfeffers, historically famous for freeing Martin Luther of his demon-haunted hypochondriasis, is still the resort of the invalid. It is situated in a most gloomy hole: and the copious hot stream that boils out of the rock *is almost chemically pure.*‡ So that

* Carpenter's Physiology, p. 185.

† Chambers' Renewal of Life, pp. 565–6; 2nd Am. ed.

‡ The italics are mine.

really the pure nymph of the fountain, innocent of salt, should have the whole credit. The same may be said of the well-known Gastein and Wildbad, the crowded Baden, imperial Plombières, of the French Aix, and our own long-frequented Buxton; for, practically speaking, the influence of the saline particles they contain must be reckoned for nothing. It is certainly nothing as compared with the effects of moderate doses of water in Dr. Böcker's experiments."

As much may be said of many of the "mineral springs" that have become renowned in this country. The water-cure has been looked upon in this country by regular practitioners with discredit and prejudice, for the reason that it has, for the most part, been practiced by a class of perambulating quacks; but we should not forget that everything that is good, either to promote health or relieve the afflicted, may be appropriated by the Regulars —*patents excepted*—without a just charge of irregularity. We are limited to no set of agents.

"To remove from the systemeffete matters which are toxically noxious to healthy life, nothingdoes this so universally as *water*."*

"As physiologists, we cannot be surprised at the benefit derived from the simple expedient of drinking water *beyond the demands* of thirst, in all diseases of *arrested metamorphosis*. Taken several times a day *between meals*, it is a most efficient remedy." †

Let us then give it the sanction of well-grounded authority and not despise it, as Chambers *did not*, because it is very simple.

The classes of patients benefited by this water treatment, are those suffering from deficient secretion of perspiration, urine, bile, etc., in which we find the skin husky and dry, bowels costive, a feeling of languor, slight headache, which at times becomes very severe, etc., all of them giving evidence of arrested metamorphosis and deficient elimination.

"In cases where there is arrest of metamorphosis without organic change in any of the viscera, I find that the weaker the spring the better for the patient." ‡

* Chambers' Renewal of Life, p. 48.

† Ibid, p. 566.

‡ Chambers.

In the class of cases above named, there is not sufficient fluid taken and absorbed to allow free, rapid and easy motion of molecular forms, and repair is not up to the physiological standard, simply because the wasted or oxidized molecular forms of tissue are not eliminated to give place to those brought within the grasp of the absorbents, *i. e.*, there is not a sufficient vehicle for the oxidized tissue to be carried out, or the nutrient materials to be carried into the tissues of the body. "Water must be in excess of that required in the structure of the tissues, and without which the said materials cannot be absorbed." *

The want of repair, stands as a cause of debility and pathological conditions of an asthenic character; the retention of oxidized—wasted—molecular forms of animal tissue, and some uneliminated salts, cause dry skin, headache, fevers, etc. Sufficient fluid to eliminate these systemic septics will give room for the absorption of nutrient molecular material, furnished by the digestive process. This accomplished, as it often may be by a few very large draughts of water *between meals*, and the physical processes of repair and waste—nutrition and oxidation—become increased in rapidity to a normal velocity, and health attains.

There is no mistake but that the addition of free heat by "flooding the system with hot water" will rapidly increase the velocity of these processes, especially in the interest of waste and afterwards elimination. And I have no doubt, from actual experience, that Dr. McElroy was correct in using this treatment in the class of cases mentioned by him.

"The conclusive experiments of Dr. Böcker and of Dr. Falck, shows the increase of interstitial metamorphosis by this agent (water) to be in close proportion to the quantity taken, within certain bounds; and all who have heard or read of the agreeable sensations experienced by patients during the water cure, cannot doubt its power of removing morbid accumulations of effete matter in the tissues. In this lies its strength; for the demand for new tissue, as expressed in the sensation of hunger, keeps pace exactly with the extent of the metamorphosis. If this demand is rightly supplied, the result must be a complete renewal of the body." †

* Chambers' Renewal, etc., p. 44.

† Chambers, p. 565.

A few cases to clinically illustrate the advantages of this treatment, and I will close.

Mr. J., æt. 30, laborer; bilious temperament, complexion sallow, average height and build, pulse 70, of moderate fullness and force, habits good, skin dry, slightly above natural heat, urine and perspiration rather scant, costive, has constant feeling of dizziness and weight, with pain in the head, the latter often severe, tongue covered with thick yellowish fur, taste bitterish, has a feeling of hebetude all the time.

℞. Mistura creta ʒj. ter die, as a placebo, and directed that he should drink all the water he could *between meals*, and report again in one week. He did so, and expressed himself as feeling better than for months. The treatment was continued for several weeks with good success, all unpleasant symptoms being dissipated. Since that time (two months) he has been in perfect health, and thinks he is so on account of the water cure.

In this case, molecular waste and elimination were retarded. Water increased these processes by constituting a vehicle to carry out oxidized material floating in the fluids, and by causing increase of all the secretions, thus giving better opportunity for healthy metamorphosis.

Mr. J. N., merchant, æt. 28; spare build, nervous temperament, energetic; health generally very good, but subject once a fortnight to severe attacks of nervous headache, during which he suffers intensely with pain; skin hot and dry; always has to leave his store when an attack comes on. Has tried many remedies but found none that relieved the attacks, but many that made them worse Says he can always predict an hour beforehand when the pain will cease, by a feeling in the bowels or bladder, showing that there will soon be an evacuation from one or the other. Ordered him to drink two or three quarts of water as *hot as he could swallow*, as soon as the attack begun. He has done so repeatedly, with immediate relief every time. Thought the remedy such a simple one that at first he was not at all disposed to use it, but uses it every time now.

In my own person I have repeatedly used the remedy as in the above case, for similar reasons and with like results. It always causes free diaphoresis, full and forcible pulse, soon followed

by free micturition, and often an evacuation from the bowels, pain very soon relieved.*

In the above cases, the system tolerated the presence of oxidized animal tissue and retained urates to a certain extent, then by a powerful effort to eliminate them, did so, but always caused great suffering before it was accomplished. The hot water, holding free heat, increased molecular metamorphosis and caused rapid elimination by increasing the velocity of molecular forms governed by the two physical processes—nutrition and oxidation—and thus health is almost immediately restored.

One other case: Mary Jane, colored, æt. 16; fleshy, lymphatic temperament, had been ill two days, pulse 100, skin hot and dry, headache very severe, tongue red at edges and tip, furred, bowels costive, catamenia regular; generally has good health. Ordered three quarts of hot water to be drank in as short a space of time as possible, after which she was to take magnesia sulph. ℥j. On my next call, stated that she had sweat profusely after the hot water was taken, and kidneys had acted freely, and felt much better within an hour after my visit; at second visit was almost well.

The principal ideas of this plan, as I conceive it, are, *first*, to increase the elimination of oxidized tissue that is floating through the system in molecular forms, also the various salts, as the urates, phosphates, etc.; *second*, to increase oxidation or waste of tissue by increasing the velocity of the physical processes of organic life; *third*, by virtue of the increased waste, to cause increase of repair, and thus cause a more rapid renewal of the system, by which alone a perfect state of health can attain.

Water alone is a valuable agent in many cases like the first given, but when acute attacks of "so-called disease" come on, in many instances free heat and water will effect relief without further help. It will *not* cure every malady or every case we meet, but is very good when proper discrimination and use is made of it. It is also cheap and always at hand.

"In the employment of hot water as a therapeutic measure, my mental conceptions include, not only the water, as *the vehicle*, but *free heat* as the potential force in the combination. Heat, I

* In my own case, I can stave off an attack of headache, etc., by free use of water—especially of *hot water*.

take to be the motor power or force of the universe, as it certainly is of organic life on our globe. In a certain number of cases, I find that there are not fluids enough in the body to carry on the molecular work of waste and repair, and that, as a result, people are sick." *

ARTICLE II.—*Statistical Report on Cataract.* By E. L. HOLMES, M.D., Professor of Ophthalmology and Otology in Rush Medical College; Surgeon to the Chicago Charitable Eye and Ear Infirmary. Read at the meeting of the Illinois Medical Society held at Peoria, May, 1871.

The operation for the removal of cataract has engaged the special study of many distinguished ophthalmic surgeons.

The wonderful and sudden change in the condition of the patient after a successful extraction, the difficulties attending its various steps, and the mental efforts required in its proper performance, have tended to attach unusual interest to this operation.

Leaving out of the estimate the statistics of a comparatively few operators in the whole world who have, as specialists, by long practice and an extraordinary repetition of the operation, acquired remarkable skill, we must look upon the extraction of cataract as a very difficult and dangerous operation; an operation which no one, however skillful in general surgery, should undertake without a special previous training. While saying this, I would disclaim all intention of throwing around the operation any mystery or unreal difficulties, which any true mechanic, I might say, with a delicate hand cannot overcome if he will devote himself long and earnestly to the subject.

I am certain the statistics of those who have been several years in practice, and yet operate scarcely more than six times in a twelve-month, would show a very large proportion of unfortunate results. I am impelled to make these remarks because the opinion is prevalent among our populace, and, I regret to say, among a part of our profession, that the removal of cataract is one of the simplest operations.

* McElroy, Northwestern Journal of Med. and Surg., p. 278.

There is no difference of opinion among recognized authorities regarding the great superiority of the operation by extraction to that of couching. In fact, this last has become obsolete, and should be regarded as malpractice. The needle is almost absolutely reserved for infantile or very soft cataracts, especially in young persons. In older persons, even soft cataracts are usually extracted through a linear incision.

The two most important modifications in the operation for extraction are undoubtedly the removal of a portion of the iris, and the substitution, in place of the former flap incision, of a linear incision, a line or two posterior to the apparent union of the cornea and sclerotic—consequently in the sclerotic and conjunctiva; and yet, strictly speaking, the extremities of the incision alone lie in the sclerotic, the central portion lying in the cornea, although in that portion of it covered at its periphery by conjunctiva.

By enlarging the opening through the iris (iridectomy) any necessary introduction of instruments is less liable to injure the iris. The lens is extracted through the iris with much less danger of bruising or stretching it than through the normal pupil. Dilatation of the pupil, by means of atropine, instead of iridectomy, is of little benefit, since contraction almost invariably takes place as soon as the aqueous humor escapes.

The only especial difference in opinion regarding the iridectomy, is upon the question, whether the operation should be performed at the time of the extraction, or some weeks previous to it.

There are somewhat greater difficulties in performing the iridectomy with a large wound in the conjunctiva than in the ordinary manner. The large wound in the sclerotic and iris made at the same time, would seem to increase the danger of inflammation.

The fact that the very few operators who extract a large number of cataracts annually, have a very high proportion of good results by the more speedy method, is not an argument for its adoption by those who operate less frequently.

The advantage derived from the modification in the form, and especially the position of the incision, is certainly great. This form of incision gives the largest opening, with the least possible wound of tissue.

The wound through the sclerotic and vascular conjunctiva heals

more readily than when made through the cornea proper. The wound in the sclerotic is in the same relative condition as a subcutaneous incision in other operations, for the conjunctiva usually heals with great rapidity.

I cannot, in any way, give you a better idea of this incision than you can obtain by inspecting this hollow model of the eye, with the transparent cornea and pupil in their relative size and position.

The curved white line on the true cornea, less than a line within the corneal border, represents the incision in the former flap operation. The other line is external to the cornea proper, and is drawn in such a way that the centre lies very near the periphery of the cornea, while the extremities are each about a quarter of an inch (on the enlarged model) from it.

To those who have seen only the old flap operation, so perfectly bloodless, the operation as above described will appear a barbarous procedure.

I do not wish, at this time, to deliver a lecture upon the modified peripheral extraction. For a full description of the manner in which the lids and globe are controlled, in which the capsule is ruptured, the lens extracted, and the compressive bandage applied, I must refer you to the papers of Græfe, and the various articles which have appeared in our later text books and journals. The monograms of Græfe are classical, and should be most carefully studied by all who would attempt to operate for cataract.

During the past fourteen years I have examined 8,967 patients affected with diseases of the eye. Of this number, 243 were suffering from some abnormal condition of the lens.

The following is a table of the diseases and injuries of the lens, and the operations performed:

DISEASES.

Cataract Incipient,	29
" Hard,	72
" Soft,	26
" Pyramidal,	1
" Congenital,	28
" Traumatic,	32
" Central Layer,	13
Dislocation of Lens into Anterior Chamber,	7
	208

	208
Dislocation of Lens into Vitreous,	4
Dislocation Spontaneous into Anterior Chamber,	2
Dislocation Spontaneous into Vitreous,	4
Capsular Remains,	19
Deposits on Capsule,	4
Foreign Body (steel) in Lens—no Inflammatory Action,	2
	243

OPERATIONS.

Extraction Flap,	7
" " (preliminary iridectomy),	12
Extraction Linear,	9
" " (preliminary iridectomy),	3
Extraction Græfe's Modified Linear,	46
Depression of Lens,	2
Division (cornea),	14
" (sclerotic)	11
Removal of Capsular Remains,	16
	120

Regarding the result of operations performed when I had little experience, I can only refer to the report I presented at the last meeting.

Of the forty-six extractions through the modified linear section, six were total failures, and forty with good results. I may remark, that of the forty successful cases, thirty-two in succession were successful, with scarcely an accident during the operation, or pain after it. Of these favorable cases, two were complicated with adhesions of the iris, two with solution of the vitreous humor, and four with sequelæ of chronic conjunctivitis.

Of the six unfortunate cases, two were complicated with extensive posterior synechia and two with serious sequelæ of conjunctivitis. All these unfavorable results were due to iritis, except one. In a single patient there was a fearful suppurative iridochoroïditis.

Of the accidents which may justly be charged to the operator, and yet are perhaps in some cases unavoidable, I may mention two cases, in which, from the great hardness of the cortical substance, the incision was found too small, and was necessarily enlarged.

In one case, in which I had supposed the cataract was hard, the lens was found to be composed of quite a thick capsule, filled with an opaque fluid, which readily escaped on rupturing the capsule.

In four cases the lens was delivered with the capsule intact.

In one case the conjunctiva was so firmly stretched over the sclerotic that it was impossible to grasp it with the forceps; in two others it was so excessively loose and flaccid, that there was difficulty in preventing a large fold of conjunctiva from being crowded over the cornea. In three operations considerable vitreous was lost, and in five a minute portion.

In thirteen cases there were extensive capsular remains, in four of which I removed a portion of the capsule, subsequently with great improvement of sight; in two, vision would undoubtedly have been greatly increased if the patients had been in circumstances to admit of the operation; in the other seven cases, the membrane was so thin, covering but a part of the pupil, that operative interference seemed scarcely demanded.

I had been so fortunate in the removal of several capsular remains left after the use of the needle by unskillful operators, that I had felt less fear of evil consequences than the nature of the operation really demands. I have removed several by means of the iris-hook, three with the hook aided by a stop-needle, and three through an incision in the sclerotic, as made in Hancock's operation. In only one case did any serious inflammation arise in removing the capsule. In this single case, a young man with congenital opaque lens, had a thick capsular membrane, subsequent to an operation years before with a needle in the hands of a traveling charlatan. I removed it through an opening (Hancock's) in the sclerotic. Severe inflammation arose, finally causing atrophy of the globe.

I may here state that I have never, in but one instance, operated on both eyes at the same sitting.

After numerous trials, I have found that I could hold the globe more steadily with the forceps by seizing the conjunctiva nearer the point where the knife enters the eye, than further from this point, as is usually advised. I prefer this position, especially where the conjunctiva is very loose and movable.

I believe, in cases in which after rupture of the capsule there

is difficulty in causing the lens to advance towards the opening in the globe, there is less real violence in "delivering" the cataract at once, by the cautious use of a suitable hook, than in protracted, though gentle, manipulation. Previous to the appearance of Græfe's paper, I had already, in several cases (preliminary iridectomy) where the cataract did not pass readily into the wound, used a blunt hook, introduced behind the lens, and, as it appeared, with exceedingly gentle force, removed the lens with the most satisfactory results. As I almost invariably give the patient ether, there is less danger of injury by the use of the hook than where an anæsthetic is not given. It should be borne in mind, however, that instruments should be inserted as rarely and as gently as possible within the globe.

In regard to the compressive bandage, which is applied to secure coaptation of the edges of the wound, I must say I have secured a more even and more easily adjusted pressure, by the use of a thin band of linen, somewhat worn, reaching nearly around the head, the interval (posteriorly) being filled with elastic rubber. The pressure produced by this band can be decreased by cutting into the rubber, or increased by taking a few stitches in the linen. In dressing the eye, it can be readily slipped upon the forehead, and as readily readjusted over the compresses.

I have generally extracted by the lower section, because there is ordinarily less difficulty, and because, so far as I can judge by comparison of my cases, and those of other operators in whom the upper section had been made, I have not observed that vision was better than in those in whom the extraction was by the lower section.

Regarding the acuteness of vision in the cases here reported, I cannot present a correct tabular statement, since nearly all the successful cases left my care before the eighteenth day, two before the tenth day, after the operation. They nearly all lived at a distance, and subsequently sent to the optician for a series of lenses from which to make a selection. Three cases, I know, were quite astigmatic; vision was improved by tilting the lens.

I know that several of these patients are able to write and read easily ordinary print; two to sketch accurately fine drawings, and nearly all to support themselves.

ARTICLE III.—*Laceration of Perineum and Rectum.* By ISRAEL B. WASHBURN, M.D., Star City, Indiana.

I was called to see W. H. B., August 24th, 1870. Upon inquiry I learned that in sliding off a hay stack that he had just completed, he struck upon the end of a fork handle. The tines of the pitchfork were set in the ground, and the top of the handle was resting against the stack. The inner part of the right ischiatic protuberance struck upon the end of the handle, his body fell to the right, the handle perforating the skin, and, upon examination, I found it passed through the perineal fascia and lacerating the rectum half an inch or more above the internal sphincter.

I cleansed the wound as well as possible, applied warm water dressings, and gave an opiate astringent to control the action of the bowels. The 26th I found my patient free from pain, and, to use his own expression, very comfortable. On the 28th I ordered an enema of warm soap suds, which produced a free evacuation, the fecal matter passing through the wound. At this time some of the patient's officious friends were clamorous for "another doctor." I consulted Dr. Fitch, of Logansport, who advised me to divide the sphincters and all tissues below the injury. I also consulted Prof. Powell, of Rush Medical College, who advised that the operation be performed. I submitted the advice of Doctors Fitch and Powell to my patient, who is an intelligent young farmer. He chose to "wait and see what nature would do." The wound healed to the size of a goose quill in about eight weeks, and remained in that condition until the February following, when it completely closed up, and is now quite well.

After the first six weeks Mr. B. went to work, and suffered no particular inconvenience from the fistula that remained unhealed so long.

ARTICLE IV.—*Foreign Body in Nose—Failure in Diagnosis—Spontaneous Recovery.* By C. T. FENN, M.D., Chicago, Ill.

November 25, 1870. Anna B., aged two years, had been strangely affected during the previous fortnight. She grew irritable by day and restless by night, often awaking and crying; her breathing was difficult and appeared to be obstructed. She rubbed her nose frequently. Her symptoms gradually got worse. Coryza became marked. The nasal secretion was scanty and sometimes fetid. Her condition during the third week excited alarm. Large vesicular sores broke out on her face. Extensive aphthous patches formed in her mouth. The lips swelled; the salivary glands became unusually active. The nose was enlarged; the nostrils were contracted. A scanty, purulent and excessively fetid discharge came from them.

The treatment was nutrient and detergent, but unavailing. The worst symptoms of coryza continued for many weeks, and were finally tolerated, such very slight alleviation was wrought by time.

The parents were inconsolable. This youngest and fondest of several beautiful children had become an object of pitiable suffering. In their endeavor to find a cause it was presumed to have been vaccination once performed.

The mother had had disease of the shoulder-joint and had undergone resection of the head of the humerus therefor. Several years had elapsed since the operation, and her recovery had been perfect, except as to motion, but the fact was construed to indicate a diathesis. The child was believed to be *scrofulous.*

June 10, 1871. At last all doubts were solved by an occurrence as unexpected as it was satisfactory. The child, while picking her nose, withdrew a plug of woolen cloth. When washed and smoothed, the stuff proved to be green and blue plaid, of which children's dresses are made, and measured three inches long by three-fourths of an inch wide. The green was faded. A week later she relieved herself, by the same method, of another plug, of black silk, equally large, from the opposite side. The cure followed immediately, seven months after the appearance of the disease.

ARTICLE V.—*Gynecological Clinique. North Chicago Charity Dispensary. Rush Medical College.* Every Thursday. Prof. DE LASKIE MILLER. Reported by C. T. FENN, M.D., Chicago, Ill.

Two flights of stairs to the right of the north entrance to the College lead to the patients' waiting room. Ventilated, light and warm, provided with settees, a sink and a water closet. Adjoining the waiting room are two apartments: one, a small room for the examination of children and such of the women as do not require special treatment; the other, a commodious and beautiful room, furnished with everything essential in the conduct of the Clinique. A low operating table, mattress and pillow occupy the centre, fronted by two large windows, whose light is reflected from all sides by white walls and an oblique ceiling. A sofa, some chairs, a table, a sink, a closet with drawers, and a screen before the door, complete the furniture. Another entrance opposite that from the waiting room opens from the College library room.

Delicacy and kindness are always necessary in the treatment of the indigent; but, the sensibility being often inversely as the refinement, it requires the highest degree of tact to induce all who apply to this department to subserve the interests of medical instruction. While they are received and treated with the deference due to womanhood, they are required to obey the rules. Convenience and efficiency are promoted by pretty strict discipline on the part of medical attendants, patients and visitors.

Every patient who comes is registered by name, age, nativity, residence, occupation, condition as to marriage, number of children, miscarriages, and date of confinements; previous and present complaints; supposed causes; menstruation, regularity, amount, suffering; leucorrhœa, regularity, amount, constancy; pain, regularity, constancy; locomotion; other symptoms, digestive, and physical signs. Examinations of the uterine organs are made by touch, speculum and probe, whenever necessary. The diagnosis and the treatment are recorded at each visit. The other entries are made but once. No routine is followed in the treat-

ment. Anæmic, tuberculous or syphilitic conditions are met by appropriate remedies as often as they are present. Each patient receives a card containing a name and corresponding number.

The management has proved both easy and satisfactory. It is an invariable custom to protect the person. Whenever a patient reclines in the course of an examination the portions of her body liable to exposure are covered with a spread. A thick veil is provided also, which she may draw over her face. With an assurance of strict obedience to this precaution, patients are rarely much affected by the presence of others.

During the hour appointed, students, in classes of ten, are admitted by an assistant in charge of the library door. They are permitted to witness the modes of diagnosis and of treatment, are carefully instructed in what pertains to the case, and then are ushered out the way they entered. An assistant waits on the patients, having them in readiness. A third assistant keeps the books and prepares prescriptions. Another well trained assistant waits on the gynecological attendant.

It is proposed hereafter to report a few cases taken among the patients as they came, without regard to special interest. They will present a fair average of their class. The present effort is to point out the advantages of the Dispensary, and to indicate some features of its management.

The following table shows the number and character of cases admitted from February 24, to July 28, 1870, twenty-three weeks. They have been followed by many more, the average attendance being now over twenty each week.

Number.	Nativity.	Age.	Occupation.	Married or Single.	No. of Children.	No. of Abortions.	Time since last Confinement.	Duration of Sickness.	Date of Admission.	DIAGNOSIS.
1	Ger'y	22	Domestic.	S.	1		18 m		Feb. 24	Vaginitis.
2	Ill.	17	Seamstress.	S.				3 y	" "	Dysmenorrhœa and constipation.
3	Irel'd	29	Housewife.	M.	2		2 y		" "	Vaginitis and metritis.
4	"	36	"	M.	6		10 m	6 m	" "	Metritis and constipation.
5		18		S.					" "	Amenorrhœa and constipation.
6	N. Y.	38	Seamstress.	S.					" "	Chr. metritis and displacement.
7	Irel'd	33	Housewife.	M.	None			8 y	" "	Chr. metritis and retroversion.
8	Eng.	39	"	M.	6	2	12 y	4 y	" "	Cervical endometritis.
9	Irel'd	31	"	M.	None	5	5 y		" "	Vaginitis and metritis.
10	"	38	Nurse.	M.	6	2	5 y	2 y	" "	Menorrhagia.
11	"	28	Domestic.	S.				6 m	Mar. 3	Dysmenorrhœa.
12	"	27	Housewife.	M.	None			9 y	" "	Chr. metritis.
13	Eng.	44	"	M.	9			3 y	" "	Ovarian tumor.
14		13	School.					1 m	" "	Anæmia.
15		45	Housewife.	M.	4	1	4 y		" "	Vaginitis.
16	Irel'd	25	"	M.	3		19 m	1 y	" 10	Ovarian tumor cyst.
17	City.							3 y	" "	Chronic meningitis.
18	Penn.	36	Housewife.	M.	2		4 y	6 m	" 17	Endometritis and ulcer.
19	Mass.	23	"	M.	None			2 m	" 24	Engorgement uteri.
20	N. Y.	38	"	M.		2	2 m	2 m	" "	Delayed involution.
21	Scot.	42	"	M.	9		5 y	6 m	" "	Dysmenorrhœa.
22	City.	3 m						3 w	Apr. 7	Ton contrac. lig. nuchæ.
23	Irel'd	33	Housewife.	M.	None			6 y	" "	Chr. metritis.
24	"	25	"	M.	None			18 m	" "	Chr. metritis.
25	N. Y.	11	School.					2 y	" "	Hemorrhage of bowels.
26	Irel'd	35	Housewife.	M.	1		12 y	12 y	" "	Metritis and displacement.
27	Ger'y	59		M.			20 y		" "	Menorrhagia.
28	Irel'd	26	Domestic.	M.		1	4 y	1 y	" "	Metritis and displacement.
29	"	17	"	S.				4 y	" "	Dysmenorrhœa.
31	"	28	Housewife.	M.	5		2 m	2 m	" "	Defective involution.
32	"	40	Domestic.	S.				4 m	" "	Amenorrhœa.
33	"	21		M.					" "	Amenorrhœa.
34	"	26	Housewife.	M.	5		7 m	3 y	" "	Prolapsus of bladder.
35	"	18	Domestic.	S.				3 m	" 14	Anæmia.
36	Swed.	54	Housewife.	M.				1 y	" "	Vaginitis.
37	Irel'd	38	"	M.	3			2 m	" "	Vaginitis.
38	N. Y.	30	"	M.	None			2 y	" "	Endometritis and retroversion.
39	Irel'd	28	"	M.	4		4 m	4 m	" "	Chr. metritis.
40	Eng.	39	"	M.	8	4	10 w	2 y	" "	Menorrhagia.
41	Ger'y	42	"	M.	3		14 y	14 y	" 21	Chr. metritis.
30	Irel'd	45	"	M.	1	2	6 y	8 y	" "	Amenorrhœa.
31	"	40	"	M.	6		4 y	4 y	" 28	Engorgement and prolapsus.
32	"	28	"	M.	2		21 m	3 m	" "	Endometritis.
33	"	28	"	M.	2		2 y	6 m	May 5	Endometritis.
34	City.	2						3 w	" "	Inflammatory diarrhœa.
35	Eng.	14	School.						" "	Dysmenorrhœa.
36	N. Y.	24	Housewife.	M.	1	6	10 m	4 m	" 19	Pregnancy.
37			"	M.	6	2	8 m		" "	Chr. metritis.
38	Irel'd	19	Dressmaker	S.				5 m	" "	Amenorrhœa.
39	"	37	Housewife.	M.	7	2	19 m	7 y	" "	Engorgement & excoriated cervix.
40		4							" "	
41	S. C.	12	School.					11 y	" "	Ichthyosis.
42	Irel'd	44		M.	6		3 y	3 y	" "	Chr. engorgement.
43	"	40		M.	3		12 y	9 y	" "	Chr. metritis and displacement.
44		8	School.						" 26	Pleuritis circumscribed.
45	Irel'd	44	Housewife.	M.	4	2	6 y		" "	Chr. metritis.
46	"	25		M.					" "	Delayed menstruation.
47	"	22	Domestic.	S.				18 m	" "	Dysmenorrhœa.
48	"	50	Housewife.						" "	Chr. metritis.
49	Ca.	28		M.	None			4 y	June 2	Endocervicitis.
50	N. Y.	23	Housewife.	M.	1		4 m	4 m	" "	Defective involution.
51	Irel'd	40	"	M.	7	2	16 m	5 y	" "	Endocervicitis.
52	"	38	"	M.	3		3		" 9	Chr. metritis.
53	"	45	"	M.	2	7	10 d	12 y	" "	Complete prolapsus.

Number.	Nativity.	Age.	Occupation.	Married or Single.	No. of Children.	No. of Abortions.	Time since last Confinement.	Duration of sickness.	Date of Admission.	DIAGNOSIS.
54	Irel'd	45	Housewife.	M.	9			3 y	June 9	Ulceration of cervix.
55	Ger'y				3		3 y	3 y	" 16	Chr. metritis.
56	Irel'd	40	Housewife.	M.	5	3	2 m		" "	Cervicitis.
57				S.					" "	Anæmia.
58	Irel'd	37		M.	None			4 y	" 23	Endocervicitis.
59	"	46	Housewife.	M.	8		3 y	6 y	" 30	
60	"	28		M.	5	1	3 y	1 y	" "	
61	Ger'y	29		M.	3		8 y		" 23	
62	Eng.	15		S.				3 y	" 30	Delayed menstruation.
63		28		M.	1		10 m		" "	Endocervicitis and retroversion.
64	City.	5 m							July 7	Psoriasis capitis.
65	Irel'd	40		M.	3		8 y		" 14	Amenorrhœa.
66		40		M.	5		2 y		" "	
67									" "	Debility.
68	N. Y.	2							" "	Worms.
69	Irel'd	35	Housewife.	M.	2		6 w		" "	Debility.
70	"	30		M.	2		6 y	3 y	" "	Chr. metritis.
71		32	Housewife.	M.	6		3 y	6 y	" "	Enlargement of womb and ulcer.
72		16m							" 21	Chr. diarrhœa.
73	Eng.	30	Housewife.	M.	2		3 m	16 m	" "	Prolaps. & ulcer uterus & vagina.
74		3							" "	Dysentery.
75	Asia.	26	Housewife	M	1	1	4 m		" "	Endocervicitis and ulcer.
76	Eng.	36		M.	6	2	1 y		" "	Chr. metritis.
77	Irel'd	21							" "	Debility.
78	"	26		M.	1		10 y	2 y	" "	Metritis.
79	Ill.	8	School.						" 28	Pleuritis.
80	Irel'd	11	School.						" "	Quinsy.
1	City.	6 m	Babe.						" "	Herpes solaris.

The substance of this report is taken from Prof. Miller's remarks at the clinic. The arrangement is intended to suggest the nature of the cases, the manner of treatment, and the quality of instruction to be had by attendance upon this Department of the Dispensary.

Oct. 20, 1870. *Endometritis and retroversion.* Mrs. C., aged 30, ruddy and corpulent, rendering the introduction of the speculum difficult. She has been wearing a Hodges pessary a week. It will be allowed to remain. Application within the cervix uteri, by means of a probang, armed with a bit of cotton batting, of the following mixture: Solution of the persulphate of tron; compound solution of iodine and glycerine, of each equal parts; carbolic acid added, five grains to the fluid ounce. Two or three probangs prepared, in order to bring the mixture surely in contact with the living tissue.

Oct. 27. The pessary which she has been wearing a fortnight will be removed and left out a week. The indication is to cure the inflammation. Mechanical supports are never to be kept in without careful observation. They should be removed occasionally and medicine reapplied, for it might be that some spot had become irritable. The amount of inflammation has been lessened by the mixture described. Surgeons might use it with good results, getting the ultimate effect of iodine, the astringent effect of iron, and the peculiar effect of glycerine, which is to diminish engorgement. This patient had been on treatment for a long time before coming here, having run the gauntlet of inflammation, retroversion, and other grave conditions. She despaired of ever being any better; but, since her appearance at the Dispensary, she has greatly improved.

Nov. 3. The womb is found to be patulous, and yet in place. There being no displacement appreciable now, the pessary will be left out.

Nov. 10. She will need treatment for some time to come, but we see improvement from week to week. Ordinarily a case like this will give a physician a patient for two years. There is some inflammation yet. She says she has just had her courses and did not see a drop. All the blood in her body rushed up to her head, as she thinks. We will see her a day or two before she is to be unwell again, and will then apply a glycerine pessary.

Oct 20, 1870. *Inflammation of the vulva and cervix uteri.* Extremely irritable. Miss D. The secretion removed not healthy; the cervix excoriated. Nitrate of silver in solid stick, carried directly to the parts affected. This will arrest superficial inflammation as quickly as anything.

Oct. 27. It requires the greatest care and delicacy to introduce the speculum without pain; the very best that can be done causes a little suffering. Cervix exposed. It requires considerable force to remove the mucus. It is of the character of pus. Signs of inflammation are still remaining on the outside of the neck. Nitrate of silver applied. Many practitioners do not succeed because they disregard the fact that the effect of the first application is merely to coagulate the mucus. As the speculum is withdrawn, coming to the vulva we see considerable inflamma-

tion about the orifice of the urethra. Parts of the vulva are swollen. Nitrate of silver applied here.

Nov. 3. It has been discovered that there is displacement of the uterus, as well as inflammation of the vagina and vulva. We find heat and swelling. The canal is contracted, therefore, and requires more care than usual in inserting the speculum. Probangs soaked in a solution of nitrate of silver brought in contact with the entire surface. An application within the vulva or near it, is attended with more pain.

Nov. 10. A solution of nitrate of silver, forty grains to the ounce, applied to the vulva and to the vagina.

Oct. 20, 1870. *Cervicitis.* Mrs. G. The os uteri is low, quite within the vulva. The neck is hard and elongated. Whenever there is a tendency to bleed, the mixture of iodine, iron and glycerine is best; it causes no pain, and is very efficient in overcoming inflammation. She has had three children and one miscarriage, but no children for the last eight years.

Oct. 20, 1870. *Ulceration.* Mrs. P. It is necessary to our own comfort to make a digital examination to know the direction and the position of the os uteri. If we should find difficulty with the speculum, it would be best to reintroduce it. It might be necessary to use the sound in order to bring the os uteri perfectly and squarely within the speculum. Cotton used to engage the mucus, which was tenacious and yellowish. Solution of nitrate of silver, five scruples to the ounce of water, applied twice; it is better than the solid stick. The second application acts on the living tissues; compared to the treatment of granular ophthalmia.

Dec. 1. Prof. Miller intentionally put the speculum to the surface of the vagina, and called attention to the fact. He next elevated the os uteri by drawing it up with a sound, while the speculum was withdrawn a little, then put forward, to engage the cervix. This is a typical case of ulceration of the os uteri. The inflammation is limited to the neck. It is cervical metritis, involving both the mucous membrane and the other tissues. It is not sufficient to apply the medicine on the outside of the cervix merely; it should be passed within.

Oct. 20, 1870. *Chronic engorgement, inflammation, and the result of inflammation.* Mrs. McM., aged 35. The os uteri is enlarged. There is a sanious discharge, obscuring the os until it is removed. A slight touch will produce blood Here the ulceration is between the lips. These lips are larger than in health, thickened by inflammation. The mixture of iron, iodine and glycerine applied so as to come in contact with the living tissue. Engorgement simply does not give a correct idea of this case; there is inflammation. It requires a little aid from the sound to bring the anterior lip into view; with a speculum the size of that we are using, it could not all be engaged. There is an increase of tissue, not simply an increase of fluid. Ordinarily nitrate of silver would have been used, but one week of this mixture in such cases is better than four weeks of nitrate of silver. It may be applied every five or six days.

Oct. 27. Before introducing a speculum to bring the os uteri into view, we make a digital examination to find that there is a remarkable roughness and hardness of the os uteri, not scirrhous, but the hardness is due to inflammation, and the roughness to loss of tissue. The speculum passed into the vagina, no attempt to engage more than the anterior lip of the os uteri. The condition here is not so much one of ulceration, to the eye, as it was a week ago. We must remove the hardness. The probang, loaded with cotton saturated with the mixture of iodine, iron and glycerine, passed an inch within the cervical canal. The peculiar effect of the mixture is aided by the carbolic acid, which is one of the most efficient local stimulants and anæsthetics; without it there would be smarting and pain. It always happens, in the use of this mixture, that unless it be made to pass into the cervix instantly, it will not go at all.

Oct. 20, 1870. *Amenorrhœa.* Miss R., aged 23. Her periods were interrupted on her voyage from Ireland to America, three months ago. There is no pain; she complains of a sense of fatigue. There is glossitis. Her bowels are tympanitic. Her feet are swollen. Treatment: a mixture of the saturated solution of chlorate of potash, and the tincture of chloride of iron, to be taken three times daily after food.

Oct. 20, 1870. *Infantile atrophic paralysis.* Willy G., aged eighteen months. He has been subject to chronic diarrhœa, an obvious cause of paralysis. He lost the use of one of his arms four weeks ago. It was sudden—in the morning he could creep, but in the evening he was without the power of moving his arm or his hand in the slightest degree. He can move them freely now, but is still unable to creep. The treatment was a simple diarrhœa mixture and cod liver oil. Chlorate of potash and tincture of chloride of iron have been given three times daily as a tonic.

Oct. 20, 1870. *Prolapsus uteri.* Mrs. D. She has been wearing an instrument which is not quite in place to-day. It will be taken out to reinsert. A longer instrument substituted, in order to hold the womb higher. It is an extreme case.

Oct. 20, 1870. *Unilocular ovarian cyst.* Mrs. A., colored. This patient came for diagnosis. There is no need of exposure. The enlargement began over the right ovary, six or eight months ago. There is no irregularity, no hardness. The enlargement is uniform. We do not suspect pregnancy. The speculum reveals a little appearance of uterine difficulty that ought to be treated. The mouth of the womb is quite irregular, one side of the cervix enlarged, the secretion purulent. The sound proves that the abdominal enlargement is not of the womb. A whalebone probang and clean cotton used to apply the mixture of iron, iodine and glycerine to the cervix uteri. There is by this means no danger from the use of pencils that have been employed in the treatment of other diseased patients. By succussion an impulse on one side is communicated to the opposite side. It is fluid—it is not gas. Is it of peritoneal origin? There is no dullness in the iliac region, not so great at least. Dullness is greatest on the top. There is no Bright's disease; no swelled inferior extremities, to indicate obstructed return of the blood. It is a unilocular or ovarian cyst; a Graaphian follicle has become enlarged. Treatment: for the present, diuretics.

Oct. 20, 1870. *Endocervicitis.* Mrs. C. The disease is not likely to cure itself. There is no doubt of the presence of excoriation, for, on removing the mucus, blood starts. The neck of the womb is also enlarged. In this case our favorite specific

application introduced into the canal, has the best effect. The same has been applied to the outside of the cervix also.

Oct. 20, 1870. *Prolapsus uteri and ulceration.* Mrs. D. These very often go together. Here the os is just within the vulva, and it is rough. There is swelling at the orifice of the urethra. The whole vagina is involved in the inflammation. The ulceration has been overcome, but granulation exists. Pass a weak solution of nitrate of silver, to strengthen the parts and to prevent a retrograde. Pass it on to the outside also, for the purpose of producing the peculiar effect of the nitrate externally.

Oct. 27. The cylindrical speculum is preferred on account of haste and the little pain caused by it. The appearance of the cervix before the removal of mucus again exhibited. Cotton by forceps, then by torsion, to entangle the tenacious mucus. Observe the secretion. Inflammation here exists along the canal. The nitrate of silver applied last week caused some hemorrhage. We will apply the mixture of iron, iodine and glycerine to-day. The probang will pass into the cervix nearly an inch, in some cases an inch and a fourth, till it comes to the os internum. Two probangs are required to produce effect. Apply still another outside. A porous plaster ordered to her side, to relieve pain.

Nov. 3. Improving. The roughened cervix looks as though tissue had been lost by inflammation, it is so irregular.

Dec. 1. The cervical neck has a band drawing it to the left side, and front of the pelvis. In removing mucus or blood or whatsoever else it may be, apply force enough to detach it.

Oct. 27, 1870. *Debility.* Mrs. D., aged 38. Complains of cough, and soreness all over, worst especially across the loins. She had not seen her courses for three months, but week before last they returned. She has had seven children; the last, seven years ago. She has been complaining over a year. An ulcer of the cheek communicates with necrosis of bone. She avers that her jaw was broken by a dentist. Treatment: the solution of chlorate of potash and tincture of chloride of iron. Referred to the Surgical Department.

ARTICLE VI. — *Cholera, and its Relation to Pregnancy and Child-Birth.* By CARL PROEGLER, M.D., late Surgeon German Army, Aurora, Ill.

As we may expect the approach of cholera again, it will not be without interest to a good many physicians, who have not had occasion, perhaps, to study that fatal disease, and I will endeavor to give some of my experience. It was during an epidemic in the southern part of Germany (Munich), that I had occasion to make the following observations:

Pregnant women may get cholera in any stage of pregnancy, as the following statement will show. These patients were admitted up to a certain day. (In speaking of month, I mean lunar month.)

Of 36 pregnant women admitted, 5 were in their 10th month; 4 in their 9th; 3 in their 8th; 4 in their 7th; 2 in their 6th; 3 in their 5th; 8 in their 4th; 3 in their 3rd; and 4 in their 2nd.

There is no month with a certain immunity, and no certain predisposition; and the question whether cholera in pregnancy is more fatal than otherwise, will be rather difficult to decide.

Certainly any disease complicated with pregnancy is itself more grave, and certainly we may think that a non-pregnant woman without cholera will sooner get well than a pregnant woman with it. It is certainly very hard to decide at the first glance what grade of infection a cholera patient has; and I remember a good many patients brought to the hospital with nothing else than slight diarrhœa, who would with the utmost care die in collapse. As in other cases, so with patients, pregnant and with cholera, the infection is the only thing decisive for the duration and cure. We lost 21 out of 36—mostly extreme cases.

Cholera in pregnancy is almost similar to that without it. Only the pains experienced by those affected with asphyxia (collapse) along the region of the kidneys seem to be, with pregnant women, more severe. It is rather difficult to decide about the causes of these pains, whether they are seated in the kidney itself, or whether they are only sympathetic pain arising from the rectum. It may be possible that with pregnant women,

pains occur in the state of asphyxia by painful contraction of the uterus, pains across the kidney may simultaneously arise.

Three times I have seen death ensuing with protracted asphyxia; seven pregnant women died with asphyxia of a shorter duration, and eight in the cholera typhoid (collapse). There is nothing abnormal in these deaths compared with cases of non-complicated cholera. Cramps which can be noticed with other non-complicated cases occurred rather frequently with pregnant women, but were probably due to uræmia.

We have seen that pregnancy does not modify the causation of cholera; let us now see how much pregnancy and child-birth will be influenced by cholera.

My diary shows, that cholera not very seldom interrupts pregnancy. Of the twenty-one deaths by cholera, we had eight which died before death of the fœtus.

In the eight cases nature accomplished premature delivery. Of the remaining fifteen, five aborted. Delivery especially comes on more easy in the later months than earlier. Of all the women who were delivered, there were only two in the third month of pregnancy; all the rest were in the seventh, eighth, ninth and tenth lunar months.

Of the other women not delivered and who died, only four had passed the sixth month, and they became in so short a time asphyxiated, died so soon after cholera set in, that nature, if I may say so, had not time to commence the act of delivery. Of all those who did not abort and lived through, none had passed the tenth fifth months.

In accordance with Bouchat and Deasche (see the latter, Epidemic Cholera, page 295,) it was impossible to make exact observations, because we would get the cases where no fœtal life could be traced. I could not discover, like Deasche, first more frequent pains and afterwards gradually wearing away; it was apparent that pains were retarded and pains themselves not strong enough.

Pains commence in pauses of thirty minutes to one hour, lasting only a few seconds, but are of little use, because the woman will hardly, as the common saying is, "bear down"; delivery is, in consequence, delayed more so than generally with multiparas,

where there is no mechanical impediment. There are few exceptions, and I have seen very good pains in two cases. After delivery the uterus contracts well. Only in one case have I seen slight hemorrhage on account of atony of the uterus, which was easily controlled by cold applications and Sec. cornut. in 10 grain doses.

In women who have been delivered by sectio cæsarea, I noticed that the contractility of the uterus after death was not in accordance with the spinal muscles (Wirbelmuskeln).

I noticed on those patients post-mortal contraction of the muscles, especially at the extremities and also at the mm. pectorales, but the uterus, after delivery of child and placenta, was flabby-like. I had no means of using electricity, else I would have tried to compare the muscles of the uterus with the other muscles of the body. The involution of the uterus in the puerperium is a good one, if not complicated with typhoid. Three times I noticed diphtheritis vaginæ resulting in death; only one came to dissection, and in this it was found that diphtheritis was involving the uterus.

We used the same mode of treatment with pregnant women as with other patients. The patients were rubbed with ice, cold applications to the abdomen, and wine and soda water internally; but in slight cases, for preventing abortus, we did not use cold applications as freely.

There are certain indications where an active course on the part of the accoucheur should be pursued. Pregnancy itself, and especially complicated with cholera, is more dangerous than occurring alone, therefore I think the indications are to deliver as speedily as possible. As soon as the head presents and the forceps can be applied, the delivery ought to be made as quick as possible, even if the os is not quite dilated and the head not so high up. I think it safe to have resort to the forceps, especially when the pains are slow and rather weak, and perhaps the state of the mother encourages hope of recovery.

If the pelvis should be too small, craniotomy should be resorted to. I could not notice that the mortality was less with forceps, and I lost two cases where asphyxia passed off in the typhoid state, but I do think, that in such a fearful disease as cholera, every resort is admissible which promises benefit. The mortality

in cholera asphyxia is about 100 per cent. if you let nature bring about delivery. And I do believe it the duty of the accoucheur, if he gets his patients soon enough and fœtal life is not extinct, to try to save both mother and child.

Premature delivery, sectio cæsarea, forced delivery, turning, etc., would be the indication to save mother and child.

For premature delivery the cholera attack does not leave time—the fœtus dies sooner than you can deliver; to try the sectio cæsarea with a pregnant woman with cholera asphyxia, would bring the life of the mother in jeopardy for the questionable life of the fœtus—mortality itself is in cæsarean section almost as fatal as in cholera; forced delivery (forceps) is hardly any better, but should be tried, because in cholera there is everything to gain and nothing to lose; the same I can say with turning.

As noticed before, the prognosis for the fœtus in pregnant cholera women is very unsatisfactory. I have not seen a case where, after asphyxia set in, the fœtus would live. The prognosis is a little more favorable in cases where the mother has gone through a hard attack of cholera without asphyxia.

The nearer the development of fœtal life the less are the chances of its recovery; in the seventh lunar month every fœtus may be considered lost, if delivery has to be accomplished by nature.

Pains invariably cease as soon as purging sets in; but, on the other hand, I found the fœtus yet alive in a beginning state of collapse. The changes of the dead fœtus in utero are the same—it macerates and decomposes. It is very hard to determine whether the liquor amni will diminish during an attack of cholera. As far as I can remember, the quantity was the same in a case of cæsarean section, even greater. The question as to what destroys the fœtus will be equally difficult to answer.

I dissected almost every fœtus which was not decomposed, or saw it dissected. But one post-mortem resembles the other. I shall give here the post-mortem, and each one may form his own opinion. I confess that I first took what I saw for cholera, but now I have changed my opinion, because our greatest pathologists have seen the same, and in children where there was no cholera.

Opening the abdomen you will find the ileum rose colored,

especially the upper part, the lower part with a greenish hue; the same with the duodenum, which color was still greener. About three and a half inches of the ileum were filled with a colorless, whitish, dead epithelium. The lower part of the ileum with same pale green tenacious mass, getting darker towards the duodenum. In cutting the upper part of the ileum, a watery fluid escaped with some white flocks; the membrane on the upper part rose-colored, the vessels strongly injected; the membrane of the stomach rose-colored, with some streaky ecchymoses. The contents of the stomach contained opaque-colored fluid, intermixed with white stripes.

Strong subpericardial ecchymoses of the heart, especially in the neighborhood of the coronary nerve. Thymus greatly studded with ecchymoses.

Subpleural hemorrhage on the lungs; lungs without air, and the lower parts strongly filled with blood.

In the bronchii nothing resembling vernix caseosa; liver extremely pale and bloodless; spleen, nothing remarkable; kidneys, a strong line of demarcation between the cortical and medullar substance; the first a little yellow, the latter filled with blood of a dark blue red color.

Brain very soft, filled with blood.

Bladder—a small quantity of pale yellow urine.

It cannot be denied that the result is very similar to what we see in cholera dead in the adult, and it explains the view Güterbock took in saying the fœtus dies with cholera.

In conjunction with my article, I will give below a few experiments made with animals, to decide the following questions:

1. Are the dejections of cholera-sick adults poisonous for animals?

2. Can we see the same symptoms as Asiatic cholera in animals?

3. Are the same pathological changes to be seen in animals which are characteristic of cholera?

I used the injections either by rectum or hypodermically, and took the rice-water stools of patients who died in the state of asphyxia, either fresh or about three days old. Some were filtered, and some not.

I injected in a large rabbit about 72 centigrammes, or about 12 grains, of fresh filtered rice-water stool between the skin of the back. The animal seemed to be very dry, and drank about thirty centigrammes, or five grains, of the same fluid. But very soon it refused to take any food. With increasing drowsiness death ensued after eighteen hours, without having had diarrhœa.

Sectio cadaveris showed the ileum very red, the vessels filled with blood, some glands of Peyer, of the size of a bean, some smaller, protruding more than an inch from the mucous membrane and very strongly injected, even showing small hemorrhagias in the follicles. The vessels leading to the glands of Peyer were strongly filled with blood. Solitary follicles not abnormal. The contents of the ileum consisted of a slimy mass of a whitish color; the contents of the duodenum contained soft feces. The heart did not show anything abnormal, neither the lungs; ecchymoses, either subpericardial or subpleural, not present. In the kidneys there was microscopically nothing of pathological interest, but microscopically the epithelium of the tubi uriniferi was found partly fatty degenerated, partly broken down tissue. The bladder was filled with pale urine.

Another rabbit was injected with 7 grains=42 centigrammes of good rice-water stool. The animal was for the next twenty-four hours perfectly well. Twenty-six hours afterwards I injected 70 centigrammes=12 grains in different parts under the skin. The animal died twelve hours afterwards.

Dissection did not reveal anything extra. The contents of the duodenum were fecal; ileum contained bile-colored masses. The stomach was filled with food. The mucous membrane of the ileum was pale, glands perfectly normal, heart, lungs and kidneys perfectly sound.

Another rabbit, who fasted a day, took 60 centigrammes of filtered rice-water stool by the stomach. The animal remained perfectly well. The same fluid injected subcutaneously the next day killed it in about twenty-four hours. Nothing pathological to be found.

I injected under the skin of a dog, 75 centigrammes of one and a half days not filtered rice-water stool. The dog, whom I kept round the house, and who was always pretty lively, became quite changed from the moment of the hypodermic injection.

He did not take any food, was apathetic to all persons, and died in a perfectly comatose state. Before death he vomited; no diarrhœa.

Post mortem three hours afterwards, revealed great rigor mortis, the muscles normally colored, but a little dry; heart, lungs and kidneys perfectly sound. The stomach contained quite a large quantity of whitish froth. The ileum contained bile-colored mucus; the duodenum, fecal matter. The mucous membrane of the whole intestine pale; no glandular enlargement. The color of the blood in the greater veins with this and the other animals very dark. The right ventricle contained always dark coagulated blood.

I was inclined to take the first case for cholera, but after due reflection, I changed my mind, because the glands of Peyer are sometimes in normal relations with rabbits very great, just so with the fatty degeneration of the kidneys. I conclude, therefore—

1. Dejection of cholera will act as poison on animals subcutaneously injected, either fresh, old, filtered or not filtered.
2. The same amount of stools taken by the stomach acts not poisonous, even without a sign of sickness.
3. The death of the animals takes place without our being able to prove the cause of death.
4. The animals do not die with the symptoms of cholera, and to use rather a vague expression, they die with pyæmia.

Home Correspondence.

CHICAGO, AUG. 3, 1871.

Dear Professor:

Your aim is to "elevate the profession" by occasionally "blowing it up," and it seems to me, as well as to many of your readers, that your aim is good and effectual. You and I have jogged along through life together in our great work for over a quarter of a century, and ever since you assumed charge of the JOURNAL have I been an earnest reader of it, and been blown up by you repeatedly. I have been benefited greatly by your effer-

vescent editorials ; but now, as a slight return, will you allow *me* to "elevate" a trifle? Can you submit gracefully? *Nous verrons.*

You love old things—old ways—so do I; you are chary of innovations—so am I. Any one advancing a new-fangled notion must substantiate it or be the butt of your ridicule and mine. Female suffrage and woman doctors are questions that awaken your profane proclivities and silent contempt, and mine, also. Did you notice the arguments on the question of countenancing women doctors, in the late National Medical Association in California? We can hardly withhold our dissent from their conclusions —but it seems to me that the majority of the doctors bubbling over with indignation against the women are narrow-visioned—decidedly rutty. Do we men contain all the wisdom and ability in creation? This question is one of the period and must be decided by us, or else public opinion will decide for us, and thrust the decision down our throats, and laugh at our wrigglings and wry faces. We might much better use the philosophy of the old judge we are told about in the Bible—"If this comes from God, man cannot overthrow it; if *not*, it will die of itself." Opposition will surely develop every atom of strength of every question, on which the public split, and hearty coincidence will usually kill any nonsensical scheme.

But this is not what I started out to say. Why are we so mortally opposed to Homœopathy? What is there in the idea of Similia that makes us bristle up and announce our readiness to masticate some small-pill man, when the new doctrine is mentioned in our presence? In ordinary affairs of life we smile at a man who works himself up into a rage over an *imaginary* evil. What is *our* strong argument against small-pillism? *always*, that it is impossible to get results from such small amounts of medicine. From this basis we satisfactorily conclude that all practice of the infinitesimal school is indebted for its success to the curative powers or tendencies of nature. The amount of water required to raise a dilution of medicine to the 30th rank is simply astounding. Mind cannot conceive such a vast sphere of liquid, and when we narrate to our patrons, or any one else seeking information on the point, we are greeted with satisfactory evidence of the pungency of our argument, from our respectful listeners. There are many things that make us think about this subject, and sometimes we

become most amiably savage before we turn our thoughts into another channel. You and I have both of us lost some very estimable families by the new doctrine. At first we chuckled over their prospective chagrin and disgust, and at no distant day certain return to us. Many, very many, *did* return—but the balance *stuck*. When the latter were our patrons, we thought them tolerably clever. Now—ah! well they are deluded, to put it mildly. It has been cheering, also, to note the converse, and see how many patrons who have *always* been favorable to the new doctrine, abandon it and come over to us.

You and I are fast passing into the sere leaf, and new ideas are not going to worry us much. We practice as we think proper, and our medicines yield us good results, and we care not to turn over many more leaves. Yet we acknowledge there are new modes of cure daily coming to light in our school—every shade and variety of opinion on medicines are being put forth, and good results come from them all, and we take note of them with genuine satisfaction. We grow daily: and what more is needed to complete our happiness in our declining days, when we see such great minds in our profession as greet us at every turn, using their utmost endeavors to advance and perfect our science? We abominate fogies, and stand aloof from radicalism; we belong to neither, and are willing to hurt any one who accuses us of being classed with either category. Hence it is we laugh at Prof. P. of Michigan University, for his determination to have every man bled in pneumonia and pleurisy (and at the same time launch forth his annual bull of excommunication against Jno. Hughes Bennett who thinks otherwise), and at another professor of Theory and Practice who fathers the American Med. Assoc., for his prescriptions containing so many and such incompatible remedies, and at the same time hold up our hands in holy horror at the course taken by the Albany Med. College in electing a professor to represent Homœopathic practice! The Leopoldstadt Hospital of Vienna has an Allopathic section and a Homœopathic section. Both schools are nurtured and cared for by the government. The Surgeon General of Bavaria is a Homœopath.

The question naturally comes to us, "Is there anything in Homœopathy worth learning?" Has that school any one remedy or mode of treatment of one disease even superior to ours? If it

has, why not adopt it? A "Regular," in administering a remedy, never inquires "Is this medicine to act by absorption—revulsion—catalysis—mechanically—chemically, or through the influence of the mind on the body?" He gives it because he knows its effects, and is assured it will do what he wants it to do. Take castor oil for instance—it catharticises. *How* does it do that? By its action on the bowels. Precisely; but *what* is that action? Most medicines we know the action of, but *how* they act is no easy matter to explain. Simply because this artistic class of physicians announce with trumpet flourishings, that all diseases must be cured on the "Similia" principle, do we thrust their teachings from us and listen to none of their precepts. If they have ever so many grains of truth we deprive ourselves of them simply because they come from this source. Is that wisdom? Perhaps some junior practitioner, having read this article thus far, is thoroughly disgusted with it, considers the writer a doting old ass for consenting to even talk about such elegant nonsense as Homœopathy. It makes me smile to think even that; yet you and I know that such a young man has much to unlearn and much to learn. We know that at first sight it would seem to be an easy matter to settle beyond a doubt the efficacy of medicines. Hence, so many young men, starting out every year, confident of their medicines accomplishing precise results foreknown, soon come to grief, by being lost in their "doubting stage." They soon learn, that although diseases follow such and such courses after administering certain remedies, it, unfortunately, becomes one of the most difficult problems in practical medicine, to appreciate correctly the value of any plan of medication. You and I have done some very good service with small doses of calomel and ipecac. With the former we *check* a bilious diarrhœa—and with the latter we *check* obstinate vomiting. Yet every one knows that large doses of calomel will produce bilious diarrhœa, and large doses of ipecac will produce vomiting. That is good Homœopathy, too—such cures. *How* do those remedies act? Ringer's new Materia Medica gives many properties of different drugs—*e. g.*, camphor, ipecac, aconite, arsenic, iron, etc.,—which hitherto have been found only in works on Homœopathy. If our principles of medication and treatment of disease are *good*, why are we continually changing? Every work on Practice and Materia Medica exhibits the want of

fixed, stable principles in our therapeutics. Twenty-five years ago we gave large doses of everything, including even calomel—and bleeding was extraordinarily common—as the scars on your arm and mine will attest. Then we were tinctured with the idea that we must head off or neutralize or kill the disease—"cut short the fever"—and to-day we are laboring in the majority of cases, as in labor, to conduct them safely to the end.

In books and lectures nowadays we are taught that we are *physicians*,—not "regulars," "allopathic," "old school," or any other kind, but simply physicians. We recognize no distinctions—we want no adjections to qualify us—no prefixes. We propose to use *every*thing and *any*thing to cure diseases, be it medicines, condensed or rarified air, heat, cold, water, electricity, health lift, or anything else; but when we come to cure diarrhœa with camphor in drop doses repeated often, or croup with bryonia and aconite in frequent installments, we are at once becoming quackish, solely because the homœopathic school uses it. What do we care for the "homœopathicity" of camphor or bryonia or any medicine so long as it serves our end and furnishes us with a uniform remedy? What we want is truth, and using such a remedy cannot weaken us, nor does it entail our sanctioning such nonsensical ideas as the 30th of pulsatilla turning the fœtus in utero. My attention has been called frequently of late years to this subject by a brother and sister who use homœopathic treatment in their families. Having been candid with myself, and convinced that small pills have *accomplished cures* in their households, I am not talking blindly, but know whereof I affirm. I have seen cholera infantum checked successfully by this system of medication, and diarrhœas of young nieces and nephews ad infinitum, almost, cured by the same method. If Homœopathy does good in families, it is almost invariably accompanied by one reprehensible bad habit, viz: the incessant inclination to magnify every trifling "symptom," and pour down the pellets and powders. In every well regulated "homœopathic" family of—say three or four children, hardly a day, never a week, passes without a resort to superfluous medicine. Four-year-old Charlie, a delicate boy, plays pretty hard all day, and at the supper table finds he is too tired to eat, and perhaps has a trifling fever in addition. Here we have two grave "symptoms." Mamma looks very wise, papa

interested, and directly down goes a dose of aconite or belladonna, to be followed by another in thirty minutes. Charlie is put to bed and anxiously watched over; faces are solemn enough and surmises dreadful. Sonny is surely going to have typhoid fever, chicken pox, or scarlet fever. A good night's rest finds the patient rested, hungry, bright, and ready for another day's romping. Friends are duly informed of the wonderfully mysterious powers of potencies and pellets in arresting typhoid fevers and scarlatina, and up goes the united chorus from all, "Great is Homœopathy!"

Putting aside all foibles and evil tendencies of this peculiar school, why is it not incumbent on us to sift the wheat from the chaff and grind it for our own benefit? Homœopathy's worst enemies are its own advocates. The chief reason of its unpopularity with the scientific world at large, is the extravagant and outrageous claims put forth by its adherents, too large a proportion of whom are scarcely fit to act as a doctor's coachman. Occasionally we meet with an educated doctor of this school who is *posted* in medicine and its allied sciences, who reads our journal and his, who, to secure *ends* uses *means*, whether condensed or attenuated, large or small, quarter grain doses of morphia, fifteen-grain doses of chloral or the thirtieth of belladonna to procure sleep if necessary, yet he adheres to the Similia doctrine in most points, claiming that Homœopathy is undeveloped, and that at some day he can get along without resorting to large doses! Most doctors of this ilk, he affirms, are like a man journeying to a far country, by rail and coach, determined to use rail only, and when a gap of the former communication occurs refuses to use the latter; whereas he uses both means, comforting himself with the assurance that some day all will be a uniform means of transit.

Now then, sir, cannot you, as a teacher of young doctors, and Doctor Ingals, do great service to the profession by encouraging young men to pick up all good points connected with Homœopathy and adopt them, so far as they are sure and efficatious? Drop-doses of tincture of aconite given hourly "break up a cold;" vapor bath will do the same; Turkish bath will do the same; acetate of potash, spirits nitre, serpentaria, an hour or two of violent exercise, a bottle of citrate of magnesia, sometimes a full opiate at bedtime, or larger draughts of water at night, will all accomplish the same end. Do you, in your annual course

of lectures, advocate confining treatment of a given disease to any *one* line of medication? Certainly not. Frequently you tell the young men of as many different means of cure of a disease as I have enumerated for a "cold." A young man well balanced is not going to be contaminated, or run off into any special ism, by reading homœopathic books. Isn't it wisdom to encourage free reading of all medical doctrines? Young men turned out of our colleges now-a-days would as soon be found reading a homœopathic book as a Catholic would be found reading a Protestant bible. I have been often greatly amused by brother doctors looking over my library and noticing several standard homœopathic works therein, and expressing astonishment thereat.

The history of our profession records the birth and death of many new doctrines. Each doctrine had its adherents and enemies, who fought, bled and died over it, and it always left the profession, upon its demise, in better "shape" than it found it at birth. Just so Homœopathy has taught us two things:—1. That sick people will recover with small amounts of medicine or without any at all. 2. That we can devise means of administering nauseous compounds devoid of repulsiveness. The first item has almost totally revolutionized our therapeusis, and the second has called forth many ingenious and pleasant means of conveying anything, almost, into the most delicate systems.

If you publish this communication, my dear Professor, I expect a huge return of invective and ridiculous abuse from my veriest friends. Can you afford to put it in your JOURNAL?

Affectionately, Votrè Frere, SENEX.

[The senior editor departs from his usual custom in admitting the above communication, without the guarantee of personal knowledge of the author's name. The advance of medical science, and improvement of medical practice, which our anonymous friend refers to Homœopathy, we refer to the advance of physiological discovery. Homœopathy, at the best, is but one form of morbid anatomy. But morbid anatomy, rightly considered, is one of the most important subordinate studies of the Physiologist. "There is a soul of goodness in things evil."—ED.]

Selections.

On Syphilitic Epilepsy. By Reuben A. Vance, M.D., Attending Physician for Diseases of the Nervous System at the Out-Door Department of Bellevue Hospital.

At the present time physicians group together under the general name of epilepsy, conditions as widely unlike as the imperceptible nervous changes induced by the unfelt irritation of a slight peripheral lesion and the grave disorganization produced by a tumor of the brain. With the advance of pathological knowledge we shall doubtless see this nomenclature disappear, and have in its place one more consonant with the present state of our knowledge of the physiology of the nervous system. The symptoms embraced under this name are as discordant as the pathological conditions which produce them. The merest sense of vertigo is as truly epileptic as the most completely developed paroxysm; and between these two extremes the disease presents almost numberless varieties. Dr. Russell Reynolds insists that the essential elements of the disease are loss or trouble of consciousness and excess of muscular contraction — that the former may be the only one apparent, the latter being limited to over-exertion of the muscular walls of the cerebral vessels.

It is a matter of common observation that symptoms of this nature are developed during the course of many different diseases. The convulsions of infancy, the eclampsia of parturient women, and the spasms and unconsciousness attending the progress of cerebral diseases, are cases in point. The phenomena of epilepsy may in fact be part of the natural history of any or all of the diseases coming within the province of obstetricians, surgeons or physicians, and to this circumstance is due the many different interpretations placed upon this affection accordingly as it is viewed from one or the other of these standpoints. It is more than probable that undue stress is unconsciously placed upon circumstances which have no other relation to the disease than being familiar facts in the particular province of physicians engaged in special practice. One who has much to do with cases of epilepsy cannot but be forcibly reminded of this by the statements of patients or their friends as to the various opinions received from different physicians as to the cause of the disease in a given case. In no class of cases is this fact more apparent than in those where syphilitic infection either really exists or is supposed to exist. Patients who have ever exposed themselves to venereal disease, as well as those who have contracted gonorrhœa, or ulcers upon the genitals, are quite as apt to have their attention drawn to this mode of developing convulsions, and be classed as cases of syphil-

itic epilepsy, as those who give a connected and unmistakable history of constitutional infection.

In the causation of epilepsy, as of other forms of nervous disease, we have the important factor of hereditary predisposition. In his remarks on the theory of epilepsy, Dr. Sieveking says:

"If we apply a lighted taper to a muslin curtain, the boarding of a wooden hut, or solid masonry of a church, the effect will vary with the greater or less inflammability of the different structures. The muslin curtain will speedily take fire and flare away; the planks may be scorched, but will probably not inflame; while the stones will show no traces of the influence of the destructive agent which the first shower will not wash away. In the first two instances there is a possibility of ignition; in the third it is not possible. Mankind vary similarly in their tendency to nervous disorders generally and to epilepsy especially; some are utterly insusceptible to influences that may produce them; others, like the wood and the muslin, are more or less impressionable. But wherever the disease occurs it is essentially the same disease; the same symptoms characterize it; it follows the same course, and, unless checked, leads ultimately to the same results."

A more comprehensive state of the case than these few lines convey, could not be obtained. No one becomes epileptic because he or she is a man or a woman, and has arrived at a certain age, however potent age and sex may be in the causation of this complaint. Such circumstances merely concur to aid a predisposition already inherited. In like manner, injuries of the head, nervous exhaustion however induced, diathetic diseases, and reflected irritations, are, in and of themselves, incompetent to produce epilepsy. Nevertheless, they are all-important factors in determining the advent of attacks in persons so predisposed.

I have here grouped together several cases of epilepsy which agree in but one particular: that of acknowledging for their exciting cause the influence of constitutional syphilis. I have rejected many cases in which, while the effects of treatment would incline one to imagine the influence of specific taint, the history was void of those evidences of constitutional infection, such as are related by the patients whose cases I have inserted here. In the same manner, and for a similar reason, no cases have been deemed truly syphilitic from the mere circumstance that the patient had a venereal sore upon his penis at some preceding time. Nothing but a clear and connected account of a primary lesion, and constitutional symptoms, succeeded by the development of epileptiform convulsions, has been deemed sufficient to justify the classification of any case under the head of syphilitic epilepsy.

Case I. In 1868 this patient contracted the initial lesion of syphilis in Philadelphia, and presented the usual symptoms of constitutional infection—cutaneous eruption and falling of the hair

—during the summer of that year. In October, nocturnal pains and nodes on the tibiæ made their appearance, for the relief of which he underwent mercurial treatment. In the spring of 1869, without any premonitory symptoms, he had a number of epileptiform convulsions in rapid succession; since that time he has been subject to fits which make their appearance about once a week. In August, 1869, moved to New York. January 21, 1870, came under my treatment. At that time there were no evidences of syphilis, and the patient complained of no other symptoms indicating disorder of the nervous system than the weekly recurrence of the convulsions. The ophthalmoscope revealed retinal congestion. The treatment adopted was large doses of the bromide of potassium (15 grains three times a-day, dissolved in a wine-glassful of water); the effects of the drug upon the cerebral circulation being carefully watched with the ophthalmoscope. The fits disappeared for an interval of nearly three months. During the latter part of March, nocturnal pains again appeared; in April, the epileptiform convulsions returned, increased in number and altered in character: the loss of consciousness was not so complete as formerly, and occasionally would be but little affected during a paroxysm. The paroxysms were now exclusively nocturnal, and he would at times have as many as a dozen fits in rapid succession. The bromide was suspended for a few days, and the iodide in 20-grain doses, three times a-day, substituted. At the end of a week they were given conjointly, and so continued for a month. Subsequently, the iodide was administered alone, in doses of 10 grains twice a-day. The last fit occurred about April 25, 1870. At the present time (February 20, 1871), this patient reports that he has had no further trouble.

This patient resolutely denied ever having contracted syphilis until many weeks after the treatment directed against the convulsive disorder had been instituted. The account he then gave was so clear and explicit as to leave no doubt of his having had the disease. Prior to the use of the bromide he had been taking the iodide of potassium, for the purpose, as he expressed it, of curing the rheumatic pains from which he suffered. I was unacquainted with these circumstances until he requested permission to resume the iodide, when, upon questioning closely, he told the whole story. During the latter part of March he was absent from the city for a number of days; no anti-syphilitic remedies were employed until after the convulsions returned in April, when the iodide of potassium was used in the manner above described. When last seen, in February, 1871, this patient not only reported that he had been free from the fits, but that his general health was much better than it had been for years.

It is difficult to form a proper estimate of the causes which operated to produce the convulsive seizures of April, 1870. The

nature and frequency of the attacks, as well as the time of their occurrence, would seem to indicate that they were at least partially due to the excessive use of the bromide; while the simultaneous occurrence of the peculiar pains of syphilis, after a long interval of freedom, shows that at that particular time the specific poison was again becoming active. This patient was also absent from town for a considerable period prior to their recurrence, and my notes of the ophthalmoscopic appearances are defective at the very time when their evidence would be of service.

Case II. A gentleman, 35 years of age, presented himself in August, 1870, suffering from epileptic paroxysms occurring weekly. The attacks presented no unusual character, and there were no other symptoms referable to the nervous system. His father died of paralysis at the age of 58. During the year 1867 contracted venereal disease in New Orleans, and was treated by a prominent surgeon of that city. Constitutional symptoms came on in two or three months, but were promptly dissipated by treatment. In 1868, nodes came on the shin-bones, and he suffered from nocturnal pains. The iodide of potassium relieved these symptoms, and no further trouble was experienced until July, 1869, when the first epileptic fit came on. His business (that of a commercial traveler) rendering it impossible for him to remain long in one place, he was under no regular treatment for nearly a year. During this time the attacks were exclusively diurnal, and recurred at irregular intervals of from one to two weeks. When I first saw him, in August, 1870, there were a number of swellings on the tibiæ, the remains of former periostitis. A small but exceedingly painful node occupied the left mastoid process, and he complained of nocturnal pains in the region of the left supra-orbital nerve. He was still taking the iodide of potassium in doses of 5 grains twice a-day. He was directed to increase the iodide until 20 grains three times a-day were taken, and to take in addition the bromide in doses of 15 grains before each meal. This latter remedy was only continued a month, but the iodide is still being used. No convulsions since September, 1870.

In this case the syphilitic history was equally clear with the preceding one, and the subsidence of the convulsive phenomena directly due to the specific treatment. The bromide may have relieved any temporary condition of cerebral irritation, but it was doubtless due to the iodide that the patient was freed from his epileptiform symptoms. From the very commencement of the administration of the large doses of the latter remedy (of which smaller quantities had been given for a long time without any beneficial result), the nocturnal pains disappeared, the swelling on the mastoid process subsided, and the fits failed to return. It was the evident connection of the specific symptoms with the convulsions that induced me to stop the bromide at such an early date,

and trust to the anti-syphilitic treatment alone. The result has fully justified the action. In January, 1871, this patient exhibited no symptoms of syphilis. He was still taking scruple doses of the iodide.

Case III. A laboring man, residing in Jersey City, presented himself at the Out-Door Department of Bellevue Hospital, suffering from partial paralysis of the right leg. This was in March, 1870. He was 39 years of age, and stated that when 25 years of age he contracted a venereal sore, which, within a few months, was followed by a pustular cutaneous eruption, sore throat, and inflammation of the eyes. For these complaints he was under treatment fully a year, but was finally discharged, cured, as he imagined. The next difficulty he experienced was a very unsightly swelling of the nose, with a profuse discharge of offensive pus, severe nocturnal pains, and almost complete deafness. This was three years after the primary sore. The physician who treated him for these last symptoms prescribed large doses of the iodide of potassium, with the effect of greatly relieving him. In the year 1860 he came to the United States, and was free from all evidence of the disease, except slight deafness, for four years. In the latter part of 1862, while serving as an army teamster, he observed that the ear most affected was the seat of a peculiar and unusual sensation. Without any premonitions, he would suddenly hear a buzzing noise in that ear (the right one), with a sensation of burning, affecting the whole organ, and a tickling, tingling feeling deep in the meatus. In the beginning, these attacks were so slight as to scarcely attract his attention. As time elapsed, however, they became much more severe. Instead of the subjective noises, with itching and tingling, these attacks manifested themselves by a sudden, loud report in that ear, with momentary vertigo, followed by a great desire to rub that side of his head. The number of these attacks increased, and some were much more severe than others. In some he became dizzy and blind, but still retained consciousness sufficiently to be acutely sensible of the disagreeable feelings in his ear; while in others he could remember nothing beyond the sudden loud report which always preceded an attack—for the ensuing moment he would be unconscious. He still retained his team and attended to his ordinary business until July, 1864, when, after one of these ear-attacks, he had a fully-developed epileptic fit. During this month nocturnal pains also made their appearance, and caused him so much trouble that he resigned his employment, came to New York, and underwent specific treatment. He had about fifteen fits in all, extending over a period of two months. They were always preceded by the peculiar ear-symptoms above described. Treatment promptly dissipated the convulsions, nocturnal pains, and ear-troubles.

The partial paralysis of the right leg was relieved by large

doses of the iodide of potassium (20 grains, three times a-day) conjoined with hypodermic injections of strychnia.

Although the epileptiform symptoms in this case were developed six years ago, and the whole number of attacks was very small, yet I have related the history at some length, owing to the exceptionally clear account given of the manner in which the aura was developed, and the evident relationship between it, the milder forms of the disease which occurred early, the fully developed paroxysm which occurred latter, and those evidences of constitutional infection which were present at all times.

Case IV. A railroad conductor, aged 43, contracted constitutional syphilis in 1864. During the winter of 1866–7 was troubled with painful swellings of the clavicle and bones of the head, with diffused pains in his limbs, worse at night, for the relief of which he took the iodide of potassium. In December, 1869, had an attack of acute mania, succeeded by external strabismus and slight facial paralysis. His wife remembers that for several months previous to this he had been troubled with fits of dizziness and momentary absence of mind, recurring several times a-day. In March, 1870, epileptic attacks, nocturnal in character, made their appearance; returning at intervals of from four to six weeks, accompanied by daily attacks of the *petit mal.* During the summer he gradually lost power in the lower extremities, and suffered from boring pains in the spine. In November, 1870, was exposed for a length of time to severe cold, and from that time his symptoms increased so much in severity that he was compelled to take to his bed early in December. The epileptic attacks now became diurnal in character, and recurred several times a-day. He emaciated rapidly, and suffered much from insomnia and depression of spirits. Acute atrophy of the pronator and flexor muscles of both forearms also made its appearance, and progressed with great rapidity. On the occasion when I first saw this patient, January 1, 1871, he was almost imbecile; had paralysis of the left side of the face, and of the muscles supplied by the left third cranial nerve; anæsthesia of the forearms and legs, and atrophy of the thenar eminences of both hands and the pronators and flexors of both forearms. The fits were recurring twice a day. The ophthalmoscope revealed intense congestion of the retinal vessels, but no organic changes in the papillæ. Bed-sores had formed on both hips, and the left ankle was the seat of a syphilitic ulcer of long duration. Three large and very painful nodes were discovered on the occipital bone, while clavicles and tibiæ exhibited evidences of old periostitis. This patient was placed upon 10-grain doses of the iodide of potassium, three times a-day. These were persisted in for about a week, and then it was so arranged that the dose could be increased one grain daily. The bromide, in doses of thirty grains, was also administered each evening. These,

in connection with sustaining diet and a proper bed, were all the remedial measures adopted. By the end of January, the dose of the iodide having increased to 30 grains, it was kept at that quantity, and at the present time (February 23) is still being administered.

This patient is still under observation. Since the commencement of treatment, the epileptiform symptoms have disappeared, the mental powers have improved, and the patient so far relieved as to be able to leave his bed. The case is noteworthy as regards the prompt relief of the former. But little efficacy is, I think, to be ascribed to the bromide, for equally good results would doubtless have been obtained from the employment of sufficiently large doses of the iodide alone. It is also to be remembered that, owing to the recent date at which the epileptiform symptoms were developed, a sufficient length of time had not elapsed to allow the system to acquire the epileptic habit.

Case V. In the case of J. C., aged 37, syphilis was contracted in 1853, and proved more or less troublesome for two years. During this time all the symptoms were characteristic of constitutional infection, and he was relieved by specific treatment. In June, 1855, had his first epileptic fit. The paroxysms returned again in 1856, and gradually became more frequent. He was a soldier during the Rebellion, and although his fits came on about once a month, he found no difficulty in performing all his duties. In December, 1869, when I first saw him, the fits were manifesting themselves two or three times a-week, and recurred indifferently by day or night. At this time he was also suffering from necrosis of the right tibia. The ophthalmoscopic appearances indicated hyperæmia of the disk and retina. There were traces of old iritis in the left eye.

I have already called attention to this case in an article which appeared in the *New York Medical Journal* for February, 1871, as an illustration of the value of the ophthalmoscope in the treatment of cases of epilepsy. This was clearly shown in the treatment of this patient. As is above stated, the ophthalmoscopic appearances indicated cerebral hyperæmia, and in pursuance of the plan I commonly adopt in cases exhibiting these appearances, I prescribed the bromide of potassium in doses of 15 grains, three times a-day, and directed the patient to report twice a-week for examination. In neither of these respects were my directions complied with. He passed from under my observation for nearly three weeks, and when he came back, it was to report a return of the convulsions. Instead of taking a teaspoonful of the solution ordered (equivalent to 15 grains of the drug), he took twice and thrice that quantity. As a consequence, the paroxysms at once ceased with the relief of the cerebral hyperæmia, but when the physiological effect of the remedy was carried too far, an anæmic

condition was induced, and from this widely opposite anatomical condition the paroxysms returned with greater violence than ever. This case also illustrates the fact that success in the treatment of epilepsy depends much less upon the particular drug prescribed than upon the care and skill employed in regulating the administration of the remedy selected. In the present case, the presence of this anæmic condition was plainly evident from an examination with the ophthalmoscope. To remedy it, a drug was employed which experience has demonstrated to possess the power of increasing the amount of blood circulating through the cerebral blood-vessels—the sulphate of strychnia. This was administered in the form of a solution (2 grains to an ounce of water), in doses of ten drops, three times a-day; and very soon after its administration was commenced, the convulsions again disappeared. The patient was carefully watched from that time forward, and the bromide of potassium or sulphate of strychnia were used just as they were indicated by the varying condition of the blood-supply of the brain. His last fit occured in January, 1870.

In the above case we have an illustration of the fact that epilepsy, primarly developed by syphilis, may continue and grow worse from the influence of habit alone. It is true that this patient was suffering from necrosis at the time he came under my observation, and it is probable that the specific taint may have been instrumental in its development; yet the fact that the epilepsy was so affected by remedies, none of which were anti-syphilitic, as to produce a supension of the paroxysms for fifteen months, is strong evidence that no active influence was exerted by the syphilitic poison. Had the latter been present in an active form, no such results could have been obtained by the treatment adopted.

Case VI. R. O'G., a laborer, native of Ireland, aged 43 years, contracted syphilis in August, 1870, and had a copper-colored eruption, alopecia, sore throat, and double vision within ten weeks. Subsequently he suffered from nocturnal pains in his limbs and nodes on the tibiæ. In December, 1870, after a brief attack of localized pain in the head, had a convulsive seizure. These fits recurred at the rate of eight or ten a-week. In the intervals between paroxysms complained of double vision and vertigo. Came under treatment January 9, 1871. Was ordered—

℞.—Hydrargyri Bichloridi, - - - - grs. j.
Potassii Iodidi, - - - - - ʒ ss.
Aquæ ad., - - - - - - ʒ iv. M.

Dose, a teaspoonful in a wine-glass of water after each meal. At the same time he was to live generously, and take plenty of out-door exercise. When this patient was last seen he was still taking the above prescription. He reported that no fit had occurred since treatment was commenced, and that the vertigo and diplopia had completely disappeared. Still under observation.

In the preceding cases the interval between the contraction of the primary sore and the supervention of the convulsions varied from five months to eight years. In other examples of syphilitic epilepsy which have come under my observation the discrepancy is equally great. It is probable that the particular time at which, in given cases, epileptiform symptoms are developed is explicable only upon the same hypothesis which it is necessary to resort to in order to account for the development of epilepsy in some, and not in all, cases of syphilis. The "unknown element" which we have to postulate is the variable factor of hereditary predisposition; and the only explanation we can obtain is that in proportion to the strength of the predisposition the patient will have the convulsions occurring early in the course of the syphilitic disease. In other words, the stronger and more efficient the predisposition, the slighter will be the exciting cause necessary to develop the complaint.

The diagnosis of syphilitic epilepsy is as exact and satisfactory in certain cases as it is uncertain and tentative in others. In all cases it rests upon our ability to attain a complete syphilitic history, to discern evidences of the persistence of the disease in the patient under examination, and upon the results of specific treatment. No phenomenon of epilepsy, not connected with the above circumstances, can be considered pathognomonic. Cases in which a syphilitic taint can be excluded, will be found to present all the appearances relied upon by some to show a specific causation. Local paralysis, the rapid succession of attacks with long intervals of freedom, nocturnal paroxysms—in fact, any or all the symptoms occasionally or generally present in syphilitic epilepsy, will be found equally common, not only in cases which present no evidences of specific disease either by history or personal examination, but in individuals who have been subjected to prolonged anti-syphilitic treatment. And further, these same cases will have their unfortunate condition ameliorated, and in some instances be completely cured, by methods of treatment purely anti-epileptic.

The treatment of cases of epilepsy due to syphilitic poisoning depends mainly upon the length of time the patient has been subject to convulsions and the presence of evidence of syphilitic disease. The effects of specific remedies will vary greatly, as regards their power to control the convulsions, with the former circumstance. When the convulsive seizures are of recent date, and but few attacks have occurred, the iodide of potassium, either singly or combined with some form of mercury, will prove sufficient not only to dissipate the syphilitic symptoms, but to cure the epilepsy. If the convulsions have recurred frequently, and been present for a length of time, anti-syphilitic remedies alone will, in the vast majority of cases, prove ineffectual. With such, it is necessary to resort to measures especially adapted to prevent

the recurrence of the paroxysms. The epileptic habit then becomes an important element, and attention must be directed to breaking it up. That provision of the nervous system by which voluntary acts become more and more easy with each repetition, and finally reach that stage in which they can be performed unconsciously, appears also to be in active operation in the same manner, to accustom the system to involuntary and unconscious acts of pathological origin. It is a matter of observation that convulsive seizures, excited by evanescent causes, after a certain amount of repetition, persist apparently from the force of habit long after their original cause has disappeared, and with each recurrence not only become more easily excited, but grow more inveterate. In such cases curative measures must be directed to the eradication of this convulsive tendency—this epileptic habit.

For this reason, the treatment of each individual case of epilepsy becomes a matter for special study. The general health of the patient must be carefully looked after, and if any error of nutrition is present, appropriate remedies must be prescribed. In any case where there is even the faintest reason to suspect the presence of syphilitic taint, it is justifiable to resort to anti-syphilitic remedies, and give the patient the benefit of the doubt. No possible harm can result from a trial of the iodide of potassium, and where there is any difficulty of this nature, the benefit will be at once apparent.

In an article published in the February number of the *New York Medical Journal*, I briefly referred to the value of the ophthalmoscope as a means of determining the immediate cause of the paroxysms in cases of epilepsy accompanied by derangements of the cerebral circulation. I am fully convinced that the persistent and careful observation of the brain-circulation, as revealed by changes in the blood-supply of the retina, not only affords an explanation of many otherwise obscure phenomena of the disease, but affords a ready means of determining the effects of remedies.

In those cases where the evidences of specific disease are doubtful, and no favorable result has been obtained from anti-syphilitic treatment, as also in any case of epilepsy in which we are compelled to resort to measures intended to control the paroxysms simply, the ophthalmoscopic appearances afford rational indications for therapeutical procedure. It is unnecessary to dwell upon the well-known fact that those widely opposite conditions—congestion and anæmia of the brain—are equally competent to produce convulsive phenomena. Physiological experiments have not only demonstrated that fact, but they lead us to infer that those many and widely diverse bodily conditions which induce this disease, do so by altering the quantity and quality of the blood circulating through the brain. There is but one method by which we can determine the condition of the cerebral circulation with any approach to accuracy, and that is by the employment of

the ophthalmoscope. Congestion of the cerebral structures is then known by the presence of evidences of overfulness of the retinal vessels, while the opposite condition of the intra-ocular structures indicates intra-cranial anæmia. These two opposite conditions are distinctive of two classes of epileptics, and afford rational indications for treatment. The one class will be benefited and the other injured by the ordinary plan of administering large doses of bromide of potassium without regard to other circumstances than the fact that the individual has epilepsy.

In regulating measures of treatment calculated to break up the epileptic habit, this plan will prove of great service. While with appropriate constitutional treatment the tissue-changes which primarily induced the disease can be removed, these examinations, by giving information of the state of the cerebral circulation, will enable us to avoid producing any undue effect with our remedies, and so keep the paroxysms in abeyance until a sufficient length of time has elapsed to allow the nervous system to recover its healthy tone. This will of course vary with different cases; but with those in which a specific taint is the exciting cause, I think it can be confidently asserted that, along with constitutional measures, any course of procedure which will keep the paroxysms in abeyance for a year, will eradicate the epileptic tendency. I have yet to meet with a case of epilepsy, of any description, in which the paroxysms have returned after such a course had been adopted for that length of time.

Editor's Book Table.

[Note. — All works reviewed in the columns of the Chicago Medical Journal may be found in the extensive stock of W. B. Keen & Cooke, whose catalogue of Medical Books will be sent to any address upon request.]

A Physician's Counsel to Woman in Health and Disease. By Walter C. Taylor, A.M., M.D., author of "Gynæcological Notes;" "A Physician's Counsel to Man in Health and Disease," etc., etc. Springfield: W. J. Holland & Co. 1871.

The present seems fated to be the age of "femmes savantes," but without its Molière to teach it "Qu'un sot savant est sot plus qu'un sot ignorant." While we unite with the author, and "the most eminent physicians," to whom he alludes in his

preface, in "deploring the ignorance which produces the vast amount of disease amongst women," we must be permitted to express a doubt, as to the value of such modes of correcting the difficulty, as the one which he has devised. "Counsels to women in health and disease by a physician," we most heartily approve, but such counsels would possess much greater value when imparted by the personal medical adviser of the woman, who should frame his counsels upon the individual peculiarities, capacities and necessities of the patient, rather than upon those of the sex at large. Such counsels, we believe, would not only be much more beneficial, but also much less injurious, than when conveyed by wholesale in book form. The latter require, for their consideration and application, a large share of that quality of which sick women generally possess a plentiful lack, i. e., judgment.

Moreover, the greatest want of humanity, in this era of its history, is want of faith, a want which underlies by far the greater portion of the evils which afflict society. A necessary outgrowth of this is a feverish effort at self-government, self-control, self-guidance; and to this morbid spirit of self-sufficiency, all such quasi instructors contribute. The tendency of books such as the volume before us is simply to shake public confidence in the medical profession, by the cultivation of sciolism; and to demoralize society by exposing to the ignorant and pure, a knowledge of human imperfections which should be forever hidden in the memory of the physician and in the consciences of the guilty.

But, while we condemn the publication of such books in general, we must concede that the present volume is evidently conceived in good faith, and written with much care; what is said is all very true, and well expressed, by an author actuated by an honest and earnest desire to benefit humanity. The book, in itself, is as far from objectionable features as any book of its character can be; and if women must be learned, let them by all means read this, rather than that other, bearing as its imprimatur the hoof-print of its satanic instigator.

We have no desire to repress the inquiring mind, in the pursuit of that knowledge which is profitable; but "There is a knowledge which is forbidden because it is dangerous." Remember the apple! Remember Cupid and Pysche; remember Cornelius

Agrippa's library; remember Blue Beard! "Curiosity," says Fuller, "is a kernel of the forbidden fruit, which still sticketh in the throat of a natural man (woman) sometimes to the danger of his choking." If the binder of the book had placed the pages in consecutive order, it would have facilitated the reading of it.

W. H.

On the Cellular Structure of the Red Blood Corpuscle. By Joseph G. Richardson, M.D., Microscopist to the Pennsylvania Hospital, Philadelphia, Pa. Reprinted from the Transactions of the Royal Microscopical Society, etc. etc.

This little pamphlet, originally published in the Transactions of the American Medical Association, contains Dr. Richardson's conclusions from his own observations upon red-blood cells, and which differ essentially from those of other eminent observers. Without attempting to enter into the merits of the discussion here, we will say that the author's observations, not only upon this subject but also upon white-blood cells, are well worthy of careful examination by every student of physiology.

We believe Dr. Richardson to be not only a skillful but an honest observer, who constructs his theories upon his observations, and not, like some whom we might name, his observations upon his theories; for to many the cloud will be "like a camel, indeed"—or "backed like a weasel,"—or, indeed, "very like a whale," according as one or the other fits the pet theory. W. H.

A Treatise on Diseases of the Nervous System. By Wm. A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System, and of Clinical Medicine in the Bellevue Hospital Medical College, Physician-in-chief to the New York State Hospital for Diseases of the Nervous System, etc. New York: D. Appleton & Co.

It sometimes seems strange that authors write prefaces, so frequently are they irrelevant, and apparently having more reference to the form and appearance than to the subject-matter of the work. Dr. Hammond's preface is an exception in this regard, and one is rarely found which so clearly designates the character of the book as his. So that the reader, who wishes a peep in advance, may be sure of no after disappointment in the perusal of the work.

Dr. Hammond has, already, as an original observer, and an accomplished physiologist and psychologist, received such deservedly high commendation from every direction that additional praise would be supererogatory; but upon one point especially does he deserve praise, for his efforts, and successful efforts, to elevate professional literature to a sphere to which it dared scarcely aspire a few years ago. He has been one of the most prominent of the initiators of classical medical literature in America, and the appearance of such scholarly writers, gives good ground for the hope that the day is passing, if not already passed away, when reputations, as authors too, God save the mark! can be built upon published compilations, from standard authors, travestied into language which should shame a school-boy. The present work may, without invidious comparison, be not inappropriately termed the Doctor's "magnum opus,"—and if it has any especially distinctive characteristic, it is, we think, comprehension. Its scope is wide, its classification clear, and its details concise.

Free from useless verbiage, and obscurity, it is evidently the work of a man who knows what he is writing about, and knows how to write about it.

The subject-matter of the work is divided into three principal and two subsidiary chapters, treating respectively of the diseases of the cerebral, spinal and cerebro-spinal systems, of nerve-cells and of peripheral nerves. Prefixed to these, is an introductory chapter, in which are described "the instruments and apparatus employed in the diagnosis and treatment of diseases of the nervous system."

Surgical diseases and injuries are not embraced within the comprehension of the work; nor has the author allowed his diagnostic acumen to be misled by that hobby of routinists, that phase of typhus with secondary meningeal inflammation, ycleped cerebro-spinal-meningitis, which three or four years ago carried off so many victims intellectually as well as physically.

The author's pathological classification is strictly physiological, and the normal point of departure is never lost sight of in the morbid perversion of vital processes.

Is the hope Utopian, which would look to the elimination of this pseudonym (pathology) from medical nomenclature?

The system of classification is simple, and based principally

upon disturbances of the relations of the nervous system and its membranes with the circulatory system, and comprehends in one uniform plan its cerebral and spinal subdivisions more particularly.

The author's views upon cerebro-spinal diseases are characterized by a much more than ordinary degree of clearness, and give promise of a future, pregnant with hope not only for sufferers from, but for students of these hitherto opprobria-medicorum.

Drawn largely from standard authorities, and sources, medical, philosophical and literary, the subject-matter has been re-cast in the author's own mind, and mingled therein with original observations and deductions, the work bears the impress of originality, and is essentially his own.

In reading that portion of the work treating upon perturbations of cerebration, purely, when having reached the boundary of the physical world the author glances into the realm beyond, it is gratifying to perceive that he has to some extent receded from the extremely materialistic standpoint which he formerly occupied.

Thus, while it can scarcely be admitted that "by mind, therefore, we understand a force *developed* by nervous action and especially by the action of the brain"—although it is undoubtedly thus *manifested*, the language is considerably nearer to physiologico-psychological truth than that "the brain secretes mind," (Journal of Psychological Medicine, January, 1869, page 168.) Neither can it be admitted that "Mind is a compound force *evolved* out of the brain," if by *evolved* (p. 330) generated (p. 324) is to be understood, as the context would seem to indicate. There is no mystery involved in the relations of mind, so-called, and brain, to him who boldly takes his stand upon the basis of a-priori facts, *i. e.*, faith, which all must do eventually, however long the chain of intermediate causes may be spun; and no greater *petitio principii* is made by him who assumes the a-priori existence of mind, than by him who admits no greater assumption than protoplasm.

But as the author touches very lightly upon this phase of nervous manifestations, courtesy demands that his reticence be imitated, in the hope that he will voluntarily recede still more thoroughly from his doubtful ground, and boldly, as he once did, reject the delusion of materialism.

In concluding what must, of necessity, be a very superficial review of such a work, perhaps no better advice could be offered to members of the profession interested in kindred subjects, than that which the reviewer has himself acted upon, "Buy it, study it carefully, from title page to index, and lay it aside to be criticised at leisure." W. H.

PAMPHLETS.

The Lens; a Quarterly Journal of Microscopy and the Allied Natural Sciences: with the Transactions of the State Microscopical Society of Illinois. Chicago, July, 1871. Vol. I, No. 1.

PROSPECTUS.

The State Microscopical Society of Illinois proposes to issue on the first of October, next, the first number of a Scientific Journal, to be called THE LENS. While THE LENS will be devoted chiefly to the interests of Microscopical Science, no communication of value, relating to any department of Natural History, will be excluded. Without trespassing on the fields so ably occupied by *Silliman's Journal* and the *American Naturalist*, the only publications of like character in the United States, the pages of THE LENS will contain:

1. Original contributions consisting of papers read before some Scientific Society, or communicated directly to the Journal;
2. Original papers, elaborate or otherwise, illustrative of the *Natural History* of the Mississippi Valley, and the Far West;
3. A comprehensive *resumé* of the latest foreign inquiries, and critical reviews, with brief notices of the latest microscopical publications in this country and Europe;
4. Descriptions of all new forms of Microscopes and Microscopic Apparatus; and
5. Correspondence on matters of Histological controversy.

Contributions requiring illustration will be accompanied by carefully drawn plates, and the text will be printed on good paper in clear and legible type.

THE LENS will be thoroughly scientific, advanced and comprehensive, and will be issued under the auspices, and in the interests of this society. Each number will contain at least 48 pages of reading matter. Terms, $2 per annum, *in advance.*

In view of the fact that there are so few journals published in this country, in these interests, the committee hopes for the strong support, both contributional and financial, of all lovers of Science.

Correspondence relating to the business management of the journal should be addressed to CHARLES ADAMS, Secretary of the publishing committee, 1000 Michigan avenue, Chicago. All other communications to the editor, S. A. BRIGGS, 177 Calumet avenue, Chicago.

E. H. Sargent, Charles Biggs, Charles Adams, Publishing Committee.

Officers of the Society: H. A. Johnson, M D., Pres.; S. A. Briggs, 1st V. Pres.; H. H. Babcock, 2nd V Pres.; Geo. M. Higginson, Treasurer; O. S. Wes'cott, Sec.; Charles Adams, Cor. Sec.

The above indicates the initiation of a movement in the right direction. We welcome it most cordially, and request for it the

hearty encouragement and co-operation of other professional and scientific journals.

We are glad to see that the Microscopical Society, under its present efficient administration, so fully appreciates the importance of its mission as a public educator, as to desire to extend its sphere of usefulness and draw from other and foreign sources additions to its own stores, with which to feed the cravings of the public appetite for information in natural science. The society, although as yet only in process of crystallization as a scientific organization, has accomplished indirectly much good, by cultivating a taste for microscopic investigation, and although, it may be objected by carping critics, that with most, the instrument is merely a source of amusement, still, we say that even this is a great advance in the direction of intellectual culture and refinement. This constitutes a good beginning, an excellent foundation. Create a demand for intellectual culture and the means will soon be supplied. While it is true that the society appears not to have found favor in the eyes of a certain critic, it should be understood that the large majority of its members claim to be pupils not teachers like himself, and few, perhaps, possess the micrographic dictionary, which deficiencies should procure for them a lenient judgment.

Knowing well the majority of the gentlemen having the direction of the organization, we congratulate the society upon the wisdom of its choice, and feel sure that if the *Lens* should not achieve so great a success as we hope for it, the failure will be due neither to lack of talent, culture nor energy on the part of its managers. W. H.

Plastics and Orthopedics: A Report Republished from the Transactions of the Illinois State Medical Society for 1871. By DAVID PRINCE, M.D. With numerous wood-cut illustrations.

The Rejected Address. Man's True Relation to Nature: His Origin, Character and Destiny. By T. P. WILSON, M.D., Cleveland, Ohio, Editor Ohio Med. and Surg. Reporter. Delivered in Philadelphia, June 6, 1871.

Artificial Induction of Labor in Uræmia. By SAMUEL C. BUSEY, M.D., Physician to the Louise Home, etc., etc., Washington, D. C.

Editorial.

Asiatic Cholera.

Through the columns of some of our late European cotemporaries, we are apprised of the gradual advance of cholera, from Western Russia and Poland—where it appears to have become almost endemic during the last four or five years—through Prussia, from which its spread to England is only the next step, and that a brief one, in its progress, and thence its arrival upon our shores will be a matter of course.

The British Parliament has not considered it beneath its dignity to concert measures for the protection of the people against this dreaded pestilence, and on the 27th ult., the House of Lords commenced in earnest the discussion of these measures. In view of the location of our city as an important depot in the great immigrant route from east to west, and the further fact that it has suffered so often and so fearfully in former years from this scourge, and, moreover, that during the past year nearly every emigrant ship from Germany has reached our shores laden with the virus of small pox, and that nearly every case of that disease which has occurred in the city has been directly traceable to that source, would it not be well for us to wake up from our apathy, and take measures to protect ourselves, before the time when our judgment shall abandon us under the influence of panic?

Meanwhile we would like to ask, what is the Board of Health doing? and fortunately the question is easily answered. They are trying to solve a problem attempted by the Israelites in Egypt three thousand years ago, *i. e.*, making bricks without straw. If, now, the same hope existed, as then, of the advent of a second Moses, under whose leadership they should "spoil the Egyptians," there would be consolation in the hope, but we fear "cum duplicantur lateres, Moses" non "benit."

The Board of Health has borne much undeserved odium, heaped upon it by the secular press, and others, and it would be as well, before adding to its load, to inquire into the causes which underlie its alleged inefficiency.

We have neither the time nor inclination to go into the details of these causes. Those of our readers who are so disposed, can readily do so by consulting the proceedings of the Common

Council. But this we will say, without hesitation and from positive knowledge, that should this city be visited by cholera, or any other pestilence, from a lack of proper preventive and protective measures, the Common Council, and it alone, will be responsible.

Amongst all the charges that have been urged against the Board of Health, political prostitution has never been one, and we honestly believe its skirts to be free from the stain. The Board is not a political organization, and, we believe, cannot be used as such; hence the Common Council fails to perceive its utility, and obstinately and stupidly continues to obstruct its operations by refusing the necessary funds for their conduct. We say obstinately and stupidly, because their refusal is in gross violation, not only of the spirit but also of the letter of the law, under which the Board of Health exists, and this, too, when the expenditures of the Board during the past year have been less than ever before—less, even, than under the old political regime, when the city had one-third of its present population.

In times of public panic from pestilence, citizens look to their physicians for protection, and we call upon the profession at large, and of the city in particular, to sustain the Board of Health in their honest efforts to protect their city against this hydra-headed monster of ignorance and obstinacy, the Common Council. W. H.

Turkish Baths.

Within the last few days, a handbill has been distributed to private residences in the city, advertising the advantages of a bathing establishment. in which handbill, under the heading "Medical Testimony," appears the following "from the *Chicago Medical Journal*":

"The simple action of the Turkish Bath is to *equalize the Circulation, remove Congestion, distribute Nutrition*, restore and keep active all the secretions, whether of the skin, the kidneys, or the liver, and thus eliminate poison from the system.

"And any experienced physician will be able to see how many diseases may be benefited or entirely controlled by such an instrumentality.

"Over and above all, the Turkish Bath *purifies the blood* more directly and thoroughly than any other means the science of medicine has ever before suggested. Perspiration eliminates the water from the blood loaded with the waste and poisonous matter from the system; and by drinking cold water the blood is replenished with wholesome material in exchange. Indeed, this is the most important purpose which perspiration serves. Man perspires because perspiration being the watery portion of the blood, it carries off with it all of the extraneous and poisonous matter; thus removing

all constitutional taints, whether of *Scrofula, Cancer, Syphilis, Tuberculosis, or any blood disease.*"

Now, to say that the endorsement above quoted never appeared in this Journal, would be to give "the lie direct," and we have too much respect for Touchstone's good counsel "to go further than the lie circumstantial." Therefore we say that such a mass of etymological nonsense, physiological ignorance and vulgar quackery could have disgraced its editorial pages only at one period in its history, when, at a date which, as Cervantes says, "no quiero acordarme," there was attached to the editorial staff of this Journal, in a capacity which would probably be designated by his own appropriate patronymic, an individual who seemed, by general consent of the profession, to be deemed qualified for retirement, without rank or pay, and who subsequently, we believe, rose gradually to some sort of laundry business.

We do not propose, just now, to discuss Turkish baths in general, further than to express our regret that, notwithstanding its alleged efficacy for "the removal of all constitutional taints," it should have so evidently failed to remove the taint of mendacity.

As to this particular notice, so far as we can understand it, it is a gross fraud upon the JOURNAL and the public.

We say as far as we can understand it, for we confess ignorance as to what is meant by "distribute nutrition," "restore and keep active secretions," etc. These alleged advantages may or may not be true; they are beyond our comprehension.

If "over and above all, the Turkish bath purifies the blood," it is a great pity that its usefulness might not be extended to the purification of the conscience of the manufacturer of the impertinent handbill above quoted. If Turkish baths will accomplish this, we will give them a hearty *editorial* endorsement. W. H.

Editors of the Journal:

Will you be so kind as to insert the following notice in the JOURNAL?

I believe the society will really establish a Medical Library worthy of Chicago.

The efforts of the committee for the present will be directed to collecting files of journals, proceedings of societies, etc.

The society has secured room in the fire-proof building of the Young Men's Christian Association, the librarian of which will perform all the labors connected with the care of books, etc.

If the JOURNAL will donate to the Library any old copies which may exist in duplicate, it will aid our efforts.

Most truly, E. L. HOLMES,
Chairman of the Committee.

NOTICE.

The members of the Chicago Medical Society are making earnest efforts to found and support a public Medical Library.

They have already secured liberal donations, and most ample and permanent accommodations in the fire-proof library building of the Young Men's Christian Association.

Will members of the profession throughout the Northwest, aid the society in obtaining a complete file of the various medical periodicals of our country, by sending *any* copies of such journals to the library? Old catalogues and announcements of medical colleges, hospital reports, etc., are desired.

Small packages may be sent by mail; large ones may be forwarded by express, "Care of Librarian of the Young Men's Christian Association," who will pay all express charges.

The library is open for all visitors from 9 A. M. till 10 P. M.

LIBRARY COMMITTEE OF THE CHICAGO MED. SOC.

In directing the attention of our readers to the above communication, we, at the same time, cordially urge their co-operation in aiding the accomplishment of this laudable project, than which none may prove more advantageous to the profession at large, and to its younger members especially.

The want of a good library of reference is frequently an unsurmountable obstacle to the progress of many a would-be earnest worker. Few young men in our profession are blessed with the wherewithal to acquire this indispensable aid to study, and when the means for its acquisition are attained, too often professional ambition is lost, and he who might have become a brilliant ornament to his profession, has degenerated into a mere routinist, or possibly even a real estate operator.

Few are aware of the sort of material out of which a good working library can be constructed. Vast endowments, elegant book cases, and costly volumes are not essential, at the beginning at least. Every physician has in his own collection odd numbers of journals, duplicates, pamphlets, catalogues, etc., which are, to him, mere rubbish and worse than useless.

If each will contribute his stock of such matter, a judicious librarian will astonish the uninitiated by the amount of literary treasure he will extract from this dross.

We ask, on behalf of the committee, this much from all, as it

is within the ability of all, but, at the same time, we trust that there are many who will aid the committee by substantial donations of books and money.

The committee is only known to us through its chairman, whose name alone, however, is a sufficient guarantee of good faith of the project. W. H.

To Correspondents.

Dr. Jas. D. Whitely, Oakford, Ill., writes to the JOURNAL under date August 2nd, enclosing specimen of diseased liver and omentum removed from a patient, and requesting our opinion as to the character of the morbid growth.

Upon microscopic examination, the organs appear to have sustained fatty transformation. The normal tissues, in the case of the liver, have been converted into fat, and in the omentum the areolar tissue to have become distended with fat; rather an hypertrophy of adipose tissue. W. H.

Proceedings of Societies.

ILLINOIS STATE MEDICAL SOCIETY.

The Annual Meeting of this Society was held in Peoria, commencing on Tuesday morning, May 16th, and continuing until one o'clock P. M. of the Thursday following. It was one of the largest and best meetings that have been held since the organization of the Society in 1850. The following record embraces the most important part of the proceedings:

The Society was called to order at ten o'clock, by the President, Dr. G. W. Albin.

The roll of officers was called and all found to be present, as follows:

President—G. W. Albin, M.D., of Neoga.
First Vice President—John Murphy, M.D., of Peoria.
Second Vice President—J. S. Whitmire, M.D., of Metamora.
Treasurer—J. H. Hollister, M.D., of Chicago.
Permanent Secretary—T. D. Fitch, M.D., of Chicago.
Assistant Secretary—J. P. Johnson, M.D., of Peoria.
Committee of Arrangements—Drs. J. C. Frye, R. Boal, J. O. Hamilton, R. Roskoten, Peoria; S. Maus, Pekin; J. S. Whitmire, Metamora.

Drs. Peck and Baxter, delegates from the Iowa State Medical Society, were introduced by Dr. Plummer, of Rock Island, and were invited to take seats and participate in the business of the meeting as delegates. Dr. Peck responded briefly, and invited the Society to appoint delegates to attend the next annual meeting of the Iowa Society.

On motion of Dr. J O. Hamilton, the annual assessment for each member was fixed at $3.00.

The hearing of reports from standing committees being in order, Dr. H. A. Johnson, of Chicago, chairman of the Committee on Practical Medicine, gave a verbal abstract of a somewhat lengthy and interesting report, the materials for which had been obtained chiefly from the records of the Chicago Board of Health.

At the close of the report a recess was taken for dinner.

AFTERNOON SESSION.

The Society was called to order at two o'clock P.M., President Albin in the chair.

Dr. Boal, in behalf of the Committee of Arrangements, delivered a brief and very appropriate address of welcome; and several additional members presented their credentials and were registered.

The consideration of the report of the Committee on Practical Medicine was resumed, and Dr. G. B. Hawley, of Aurora, inquired if the report contained anything in regard to the condition of certain classes of people in different parts of the city, the actual hygrometric condition of the atmosphere, as well as the amount of rain fall, etc.

Dr. H. A. Johnson stated that the report did contain details in regard to all the matters mentioned by Dr. Hawley, except that of the hygrometric condition of the atmosphere, and he stated some striking facts illustrating the effects of sewerage and pure water in lessening the mortality. He also stated that the south and south-east winds were always followed by an increase in the daily number of deaths in the city.

Dr. Hewett stated that in his locality in Jersey county he had observed an aggravation of disease pretty uniformly in connection with dry south and south-east winds. The subjects embraced in the report were further discussed by Drs. D. W. Young, of Aurora, J. H. Hollister, and N. S. Davis, of Chicago. The latter stated that temperature and moisture certainly exert a great influence in the production of diseases, but in the production of bowel affections, so prevalent, especially among children in the summer, another element acted in conjunction with the heat and moisture. That element was some kind of atmospheric impurity. He had observed that the bowel complaints of children in Chicago invariably commence with the first week of continuous hot weather after the fresh fallen surface water of spring has disappeared, so that the surface soil is simply moist, or in a process of becoming dry. It is then that the processes of organic change and decomposition are most rapid, and the products impregnate the atmosphere to the greatest extent.

Dr. J. C. Corbus, of Mendota, member of the Committee on Practical Medicine, made a supplementary report in relation to the diseases of his locality, which, together with the report of Dr. Johnson, was referred to the Committee of Publication.

The President then announced that the Mayor and City Attorney of Peoria were present, and desired an audience with the Society.

The Mayor introduced Mr. Quinn, the City Attorney, who cordially welcomed the Society to the city.

Dr. H. A. Johnson responded on behalf of the Society.

Dr. Edmund Andrews, of Chicago, chairman of the Committee on Surgery, presented an interesting report on various surgical topics, embracing improvements in the operation for phymosis by Prof. J. S. Sherman, of Chicago; improved instruments for operating for cleft palate, irrigating the urethra, suppressing hemorrhage, using the endoscope, the choice of anæsthetics, the effects of transplantation of skin and cuticle in the healing of chronic ulcers, etc. He related three cases of the latter process by himself, and alluded to one by Prof. E. Powell.

Dr D. Prince, of Jacksonville, stated that he had made several experiments in the transplantation of cuticle to the surface of chronic ulcers. In all of his cases the ulcers were suppurative, and the experiments failed. He had been informed by Dr. Hodgen, of St. Louis, that his trials in ulcers of a similar kind had also failed, but when the transplantation had been to the surface of ulcers that were dry or non-suppurative, it had been followed by a satisfactory degree of success.

Dr. Andrews, in his report, had recommended a row of gas jets ten inches long for illuminating the urethra and other internal parts, and Dr. H. A. Johnson inquired whether the color of the light needed any correction in order to appreciate correctly the color of the illuminated surfaces?

Dr. Andrews replied that the light was sufficiently accurate for practical purposes.

Dr. Johnson added that he had found an ordinary Argand burner with a deep blue chimney to give the color of tissue very perfect. He also stated that recent cases of gonorrhœa could be generally rendered abortive, or speedily cured, by the local application of a solution of permanganate of potassa, 10 grs. to the oz. of water. The application is unirritating and painless.

Dr. D Prince said that tannic acid, moistened with glycerine and made into the form of a bougie, when introduced into the urethra and left to dissolve in the moisture of the mucous membrane, generally rendered recent gonorrhœa abortive.

Dr Kilbourn spoke against the use of ordinary astringents in the treatment of this disease, and recommended the method of irrigation described in the report of the committee.

Dr. T. D. Fitch thought the method of operating for phymosis adopted by Dr. J. S Sherman, as described in the report, was not very different from that recommended by Erichsen, in his work on surgery, and which he had followed in his own practice with entirely satisfactory results. In regard to the use of anæsthetics in surgery, he stated that up to the last two years he had given the preference to chloroform, and had so expressed himself in the anniversary meeting of this Society for 1869. But since that time his personal observations, as well as the accumulated facts in our medical literature, had induced a change in his mind, and he now thought chloroform should be used only in exceptional cases. He still entertained fears that though ether was much less dangerous in its immediate effects, yet its secondary influence on the blood might materially retard or aid in preventing the final recovery of the patient.

Dr. Harriot inquired how Drs. Fitch and Andrews administered chloroform, and was informed that they used it on a napkin over the mouth and nostrils of the patient, holding it in such a position as to allow a reasonable admixture of atmospheric air. He stated that he had used chloroform very often for a number of years without any bad results.

Dr. J. H. Hollister inquired whether any one had known fatal results from the inhalation of chloroform after the preceding inhalation of ether?

Dr. Mosher said that Dr. Frank H. Hamilton, of New York, gave ether to a patient, and failing to produce the desired anæsthesia, followed it by chloroform, which proved speedily fatal.

Dr Traverse had given chloroform frequently in obstetric practice without any dangerous effects, but thought there was more danger from hemorrhage after the delivery; so much so, that he now pretty generally gave a dose of ergot immediately after the completion of the labor.

Dr. White, of Bloomington, also thought that the use of chloroform increased the tendency to excessive flowing after labor. He related a death from the inhalation of chloroform used by mistake, supposing it to be ether.

The *post mortem* showed the blood to be in a fluid condition, and a specimen of it kept in a vial several months presented no coagulation.

Dr. H. A. Johnson alluded to a fatal case of poisoning by hydrate of chloral, recently published in Europe, in which the *post mortem* revealed the presence of chloroform in the blood, and made some comments on the philosophy of anæsthesia.

Dr. Crawford said he had used chloroform as the principal anæsthetic in his practice, using it often, and without any serious results. He thought much of the safety or danger incurred in its use depended on the mode of its administration. The method which he learned while connected with the army was to lay one or two thicknesses of factory cloth over the mouth and nostrils of the patient and then put the chloroform on it drop by drop.

Dr. J. S. Whitmire practiced and recommended the same method, and though he had given the chloroform a great many times, and still adhered to its use, he had met with no bad results. He believed, however, that its use should be limited to really important cases of surgery, and strongly condemned its use for extracting teeth and other trivial operations.

Dr. S. J. Jones and Dr. W. Young coincided with Drs. Crawford and Whitmire in relation to the method of using chloroform. The latter gentleman stated that the reason why so few accidents had resulted from the use of chloroform in obstetrics compared with general surgery was, because in labor it is given to allay pain already present, while in surgery it is given in advance, to prevent suffering anticipated.

Dr. Jenks stated that he had found a mixture of chloroform, tinct. opii., and tinct. aconite, applied locally to the gums, to produce all the anæsthesia necessary to extracting teeth.

On motion, the report of Dr. Andrews on surgery was referred to the Committee of Publication

The Society then adjourned until 8 o'clock P. M.

EVENING SESSION.

On re-assembling at eight o'clock in the evening, Dr. Albin in the chair, Dr. J. Murphy, of Peoria, made an interesting verbal report concerning the method of treating strictures of the urethra For all old and indurated strictures he recommended the use of chromic acid, applied directly to the stricture. He introduces a large-sized bougie, with several holes in the end, presses it down upon the stricture and injects through it the solution of chromic acid, repeating the application at first twice a day. When the tissue of the stricture has been softened by the application, a small-sized bougie, with holes in the sides, is used and pressed through the stricture, and acid injected as before. He continues this once a day, with increased size of the instrument, until a No. 8 passes readily. He commences the use of a solution of chromic acid, 40 grs., water, ℥j, but increases the strength gradually to 60 grs to the ounce of water.

Dr. D. Prince, of Jacksonville, member of the Committee on Surgery, made an interesting and lengthy report on the improvements in the departments of plastic and orthopœdic surgery, which was referred to the Committee on Publication.

The Committee on Obstetrics and Diseases of Women, Dr. DeLaskie Miller, of Chicago, chairman, and the Committee on Criminal Abortion, Dr. W. H. Byford, of Chicago, chairman, were called, but no reports were made.

The Committee on Ophthalmology, Dr. H. H. Roman, of Springfield, chairman, was called, but no report from the chairman. Dr. E. L. Holmes, of Chicago, one of the committee, read a short report on cataract, which was referred to the Committee of Publication.

The Society then adjourned until eight o'clock the next morning.

WEDNESDAY MORNING.—SECOND DAY.

The Society was called to order at eight o'clock A.M., Dr. G. W. Albin in the chair.

Dr. Boal, chairman of the Committee of Arrangements, reported that the committee had provided a new meeting place in the basement of the Universalist Church.

Dr. Davis moved that the meeting adjourn to the new rooms selected, but withdrew his motion, as it was desirable to remain in the hall to witness the exhibition of Dr. Truesdale's fracture-bed, after which the Society adjourned to the lecture-room of the Universalist Church. The new place of meeting is much more suitable than Rouse's Hall was. The acoustic qualities of the room are better; it is not so large, and therefore better suited to the use of the 100 or 150 delegates, and the seats and general appointments are much more comfortable. The Society were compelled to change their place of meeting on account of a minstrel performance.

The following names were proposed for permament membership: Drs J. P. Walker and N. Elsbury, of Mason City, Ill., by Drs. D. Prince and E. Andrews; Dr. C. D. Knapp, of San Jose, and Dr. N. B. Cole, of Bloomington, by Drs. R. D. Bradley and J. S. White; and Dr. John Gregory, by Drs. J. W. Hensley and H. Steele.

On suggestion of Dr Davis, a recess of ten minutes was taken to receive the names of the nominating committee. When the meeting was called to order, the Committee on Nominations reported.

Dr. David Prince, of Jacksonville, then introduced to the Society Drs. Wm. M. McPheeters and Wm. S. Edgar, of St. Louis, and moved that they be allowed the rights and privileges of delegates, which motion was unanimously adopted.

Dr. Johnson, of Peoria, continued the report on ophthalmology, in the case of ocular hyperæsthesia, which was discussed by Drs. Warner, McFarland, Johnson, Littlefield, and Holmes, and on motion, the matter was referred to the Committee of Publication.

The Committee on Phthisis Pulmonalis was called, when it was announced by the President, that the chairman, Dr. Noble, was dead.

The Committee on Otology was called, and the chairman, Dr. S. J. Jones, of Chicago, made his report, which was discussed by Dr. E. L. Holmes.

On motion, the report of the Committee on Otology was accepted, and referred to the Committee of Publication.

The Committee of Investigation reported favorably on a number of names presented as permanent members, and they were declared elected.

The Committee on Nominations made the following partial report:

Dr. J. O. Hamilton, of Jerseyville, President; Dr. T. Worrel, of Bloomington, First Vice-president; Dr. D. W. Young, of Aurora, Second Vice-president; Dr. J. H. Hollister, of Chicago, Treasurer.

On motion, this report was adopted, and the candidates elected unanimously; and on further report of the committee, Rock Island was selected as the next place of meeting.

The Committee on Criminal Insanity being called, Dr. McFarland, the chairman, submitted a verbal report, which was discussed by Drs. McCartney, of Young America, and N. S. Davis, of Chicago.

The Committee on Idiocy was called, and Dr. C. T. Wilbur, of Jacksonville, presented his report, which on motion was adopted, and referred to the Committee of Publication.

On motion, the Society then adjourned.

In the afternoon, an excursion by rail was taken to Prospect Hill. The train stopped at the residence of R. M. Cole, Esq., where three fine photographs were taken of the Society.

In the evening, a reception and banquet was held at Parmely's Hall.

THURSDAY MORNING.—THIRD DAY.

The Society was called to order, at 9 A. M.; President Albin in the chair.

The reading of the minutes was dispensed with, and the regular order of reports of committees proceeded with.

Dr. N. S. Davis, chairman of a special committee, read a report on the internal use of carbolic acid in the treatment of diseases, which was referred to the Committee of Publication.

Dr. D. W. Young, Special Committee on Cholera Infantum, read a lengthy and interesting report on that subject, which was referred to the Committee of Publication.

Dr. T. D. Fitch, Special Committee on Bowel Affections of Children, gave a verbal statement of his report on the nature and treatment of constipation in infants. The statement was accepted, and the author requested to furnish his report to the Committee of Publication. All these reports were listened to with much interest, and would have elicited very profitable discussion had not the hour for final adjournment been so near at hand.

Dr. J. S. Whitmire, Special Committee on the Duty of the Profession towards the State Medical Society, read a report, which was accepted, and referred to the Committee of Publication.

A paper on Criminal Abortion, by Dr. A. Niles, of Quincy, had been received through the Special Committee on that subject. The author not being present to read his paper, it was referred to the Committee of Publication, with instructions to examine the same and publish or not as they thought best.

The annual reports of the Treasurer and of the Publication Committee were presented, accepted, and placed on file.

They showed the financial condition of the Society highly satisfactory and prosperous.

Delegates were then elected to represent the Society in the next annual meeting of the American Medical Association, as follows:

Dr. N. S. Davis, Chicago; Dr. F. B. Haller, Vandalia; Dr. J. P. Johnson, Peoria; Dr. M. W. Walton, Ridott; Dr. J. O. Hamilton, Jerseyville; Dr. D. M. Vosburgh, Earlville; Dr. Geo. J. Monroe, Leland; Dr. D. W. Young, Aurora; Dr. E. P. Cook, Mendota; Dr. J. L. White, Bloomington; Dr. E. Willard, Wilmington; Dr. C. Winney, Sandwich; Dr. John Murphy, Peoria; Dr. D. W. Jones, Danville; Dr. David Prince, Jacksonville; Dr. J. H. Hollister, Chicago; Dr. C. Truesdale, Rock Island; Dr. H. A. Johnson, Chicago; Dr. E. Andrews, Chicago; Dr. D. E. Foote, Belvidere; Dr. T. D. Fitch, Chicago; Dr. S. P. Hawley, Aurora; Dr. N. G. Blalock, Mount Zion; Dr. D. S. Jenks, Plano; Dr. Lucius Clark, Rockford; Dr. W. M. Kaul, Limerick; Dr. E. M. Travers, Amboy; Dr. Geo. W. Wright, Canton; Dr. C. Goodbrake, Clinton; Dr. Andrew McFarland, Jacksonville.

Delegates were also elected to the State Medical Societies of the adjoining States of Iowa, Missouri, and Indiana, as follows: To Missouri. Drs. G. W. Hall, of Carthage; F. B. Haller, of Vandalia; J. O. Hamilton, Jerseyville; and T. J. Pitman. To Iowa, Dr. Samuel C. Plummer, of Rock Island; and to Indiana, Dr. Wm. H. Byford, of Chicago.

A number of resolutions were adopted tendering thanks to the Committee of Arrangements, the proprietors of the hall and church in which the meetings were held, to the railroads, to the city authorities and citizens generally of Peoria for the liberal and excellent arrangements made and executed for the accommodation of the Society during the meeting about to close. The thanks of the Society were also tendered to the retiring President, for the able and faithful manner in which he had discharged his official duties.

The President, Dr. G. W. Albin, responded briefly, and the Society adjourned, to meet in Rock Island on the third Tuesday in May, 1872.—Abridged from *Exchange*, (in the absence of the Secretary).

Illinois Institution for the Education of Feeble Minded Children.

This Institution, which was inaugurated in 1865 as an experimental school for the education of feeble minded children, has been so successful in training this unfortunate class that at the last session of the General Assembly it was organized upon an independent basis, and was incorporated as one of the permanent charitable institutions of the State, thus completing the noble circle of public charities of the commonwealth of Illinois.

The design and object of the Institution is to furnish the means of education to children and youth of feeble minds, who are deprived of educational privileges elsewhere, and who are of a proper school-attending age. It is designed for those so deficient in intelligence as to be incapable of being educated at common schools, who are not epileptic, insane or deformed.

The education furnished by the Institution will include, not only the simple elements of instruction usually taught in common schools, where that is practicable, but will embrace a course of training in the more practical matters of every-day life; the cultivation of habits of decency, propriety, self-reliance, and the development and enlargement of a capacity for useful occupation.

The combination which this Institution presents, of practical medical care and proper physical and mental training, with efficient educational resources, will supply, it is hoped, a want which has long been felt and imperatively demanded by this unfortunate class of children and youth of the State.

The improvement and progress of the pupils have been very encouraging, and parents and friends in almost every instance have expressed satisfaction with what has been accomplished in the short time since the school was organized.

The Institution is open to the inspection of the public at all reasonable hours; and all are not only cordially invited, but are earnestly requested to visit the school.

It is a State Institution, and board and tuition are free during the school year of ten months.

It is the desire of the Trustees to ascertain accurately the number of this unfortunate class of persons in the State, and persons knowing the residence of any in Illinois will confer a favor by reporting the same to the undersigned, as it is desirable that reliable statistics may be gathered in order that proper legislation may be made in their behalf.

Those designing to apply for the admission of pupils should do so at once as the accommodations are limited.

Applications for admission, information, etc, should be directed to

DR. C. T. WILBUR, *Superintendent*,
Jacksonville, Illinois.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXVIII.—OCT., NOV., DEC., 1871.—NO. 12.

Original Communications.

ARTICLE I.—*A Few Practical Hints on Sponge Tents.* By PHILIP ADOLPHUS, M.D., Chicago.

(FIRST PAPER.)

It is well known that previously to the introduction of the uterine sound and the sponge tent by Simpson (1848), the interior of the uterus was a terra incognita to us. Diagnosis was faulty and treatment imperfect. Conjoined manipulation did indeed point to the enlargement of the uterus, but the nature of its contents could not be ascertained, nor readily removed. Patients then died of exhausting hemorrhage, the result of polypi and fibroids.

The use of the sound (or its modifications, the probes of Sims and Emmet) now permits us to ascertain the direction and the length of the uterine cavity, and the relative situation of any enlargement, whilst the expansion of the uterine neck and body, by the sponge or laminaria tent, allows the introduced finger to map out the nature of the foreign substance and its attachments, and thus admits not merely of their accurate diagnosis, but of such treatment as in skillful hands is now reasonably certain in its results.

Moreover, the sponge tent, simple or medicated, as will be shown, is highly prized, not merely as a means of diagnosis; since, by its means, granulations, hypertrophied follicles of the mucous membrane, small polypi, and fibroids, are destroyed; certain cases of mechanical dysmenorrhœa, and chronic congestions and hypertrophies of the womb, are cured; the neck of the uterus, for the purpose of removing the products of conception, is expanded; and, finally, it prepares the parts in the first stage of the induction of premature labor, for Barnes' dilators and other procedures.

It is needless to describe the mode in which sponge tents are made. From Simpson to Ellis, every magazine article and treatise on diseases of women contained a narrative of their manufacture; they are now an article of commerce, and can be found for sale in the shops.

The writer does not know whether tents, devoid of disinfecting qualities, are extensively used at present; they can, however, be found in the shops. Their disgusting odor, and the offensive putrilage emanating from them when soaked in the discharges of the uterus, render them disagreeable to physician and patient, as well as to the latter, by reason of possible pyæmia, dangerous. This has always been considered a drawback in their use. Practical men have regretted their indispensability whilst prizing the advantages gained by their use.

Therefore such tents should be discarded when others may be had, which contain a disinfectant, such as carbolic acid, permanganate of potassa, etc. Those made after the formula of Ellis, by having threads saturated with carbolic acid passed through the centre of the sponge, certainly are admirable; and if, after their insertion, a suppository of cotton wool, saturated with glycerine, is placed on the os uteri, as first recommended by Sims,* no fetor is perceptible either in the sponge or cotton wool when withdrawn; the putrilage generally emanating from the discharge of the uterus, and which is otherwise found in the vagina, is likewise absorbed by the cotton wool; and this, at most, has a musty smell. Occasionally, when a tent has not been sufficiently charged with carbolic acid, the odor is not entirely set aside, but it is so much modified by the glycerine that it cannot be distinguished by the patient, nor is it annoying to the practitioner.

* Clinical Notes on Uterine Surgery; T. Marion Sims, fol. 50.

The profession is greatly indebted to Robert Ellis, who, in 1867, introduced the carbolized sponge tent into practice,* for now the only objection to their use is removed.

Nos. 1, 2, 3, 4, 5, being respectively 1 inch, 1 1-4, 1 1-2, 1 3-4 and 2 inches,† are best adapted for the treatment of chronic uterine disease; for expanding the canal of the cervix, and for the removal of small polypi; but when the uterus is much enlarged by polypi or fibroids, Nos. 6 and 7 of the size of 2 1-4 to 2 1-2, and even larger sizes, are indicated. For large fibroids, it is best to use laminaria tents, in the manner to be described in a future paper.

The well-selected tent should be smooth, spindle-shaped and conical, so that it may adapt itself to the canal which it is to dilate; its calibre must also be suitable to the case for which it is intended, for a tent which is well adapted for one is unfit for another variety of cervix uteri. Neither must it be too long, for then it will impinge on the fundus uteri; in either case irritation and pain are likely to be the result of the introduction of a badly-fitted tent into the cervix by main force. It should, moreover, be perforated at its base for half an inch or an inch, for the purpose of its transfixion by the sponge-tent carrier; and, furthermore, the obnoxious string of the commercial sponge tent, which is found at its base, and by which it is intended to be removed from the uterine cavity, should be separated.

The physician should always have a number of tents of all sizes on hand, whenever he proceeds to their selection, for introduction. For the successful introduction and removal of sponge tents, the following instruments are requisite:

a. Sims' or Nott's speculum.
b. Sims' hook or Nott's vulsellum.
c. Emmet's probe.
d. Nott's dilator.
e. A sponge-tent carrier.
f. A uterine spring forceps.

The instruments under the captions *a*, *b*, *c*, *d*, have been described in previous papers, to which the writer refers. The sponge-tent carrier of Barnes, Hicks and Ellis, is a round mallea-

* Lancet, Sept. 7, 1867, page 295.

† The enumeration of H. Aveling. Obstetrical Transactions, Vol. 9, 1868, p. 267.

ble copper wire, eight inches in length, over which is pushed a tubular brass slide, exactly like that which is used with Emmet's applicator: this slide serves, when the wire is inserted into the extremity of a tent, to propel it into the cervix uteri.

The uterine spring forceps is used for the removal of the expanded tent from the os uteri. The tent is grasped by the forceps; a slide, propelled by a button on the side of the instrument, closes it. This self-retaining forceps holds the sponge until it is removed.

Lastly, but not least, a proper table or bed are essential to the success of this, as well as every other pelvic operation.

The writer will, therefore, give a few useful hints in regard to the table or bed most practical for this purpose, and will likewise add (as it is closely allied to the subject) the manner of making the ordinary pelvic examination, as this must precede the introduction of the sponge tent.

Whilst in office practice, Sims' chair, as described in his work, is the best that can be used, in private houses, a kitchen table, twenty-eight inches high, covered with a blanket or quilt, is preferable to the bed or couch, for it may be moved wherever the best light may be had, and it also permits the operator to sit comfortably whilst performing almost any operation. In many bed-rooms these advantages cannot be had, and even if light is present, the practitioner will have to kneel whilst operating, which is fatiguing.

Should a bed be used, it will be essential to place a leaf of a table or an ironing board under the matrass or blanket, to secure a non-yielding place for the pelvis, for non-success is almost certain where the pelvis buries itself in feathers or a resisting matrass.

Should a table be used, place a chair at its foot, the patient will mount it, sit on the edge of the table with her feet resting on the chair. She is then covered with a sheet, the practitioner supports her back whilst she lies down on the table; he lifts up her feet and places them on its edge, removes the chair, and sits immediately facing her covered pelvis. No assistant is necessary. Now let the practitioner take hold of the lower end of the sheet (which should always be of sufficient length to permit the patient to cover her face, should she desire to do so), state to his patient that her person is protected, and bid her to draw up her linen towards the upper part of her person. This will prevent exposure whilst the patient is obeying his injunction. (All kinds of fumbling by the practitioner about his patient's body linen is indelicate).

Having taught the patient to relax her abdomen, partly by gently expelling the air from her lungs, partly by drawing the abdominal parietes and contents towards the spinal column by a voluntary effort, the practitioner proceeds with the external examination of the abdomen; the examination per vaginam by the touch; the consentaneous examination with one finger in the vagina, the other hand externally; the introduction of Nott's speculum, and every succeeding step; all these are performed under cover. The examination of the abdomen and the pelvis by the touch are made whilst the physician is standing at the side of the patient; the introduction of the speculum whilst he is sitting.

Tents are introduced in the following manner: The patient having been placed either in the semi-prone position, or on the back, we ascertain the direction of the uterus by bi-palpation; introduce Sims' or Nott's speculum; steady the womb by Nott's vulsellum or Sims' hook; bend Emmet's probe, and introduce it into the uterus, ascertain therewith its length, sensibility and calibre. This is followed by the introduction into the os uteri of Nott's dilating forceps, which is gently expanded if necessary; not for the purpose of dilating the cervix, but in order to ascertain the *thickness* of the sponge tent to be introduced, just as the previous introduction of Emmet's probe has taught us the *length* of the tent to be selected.

This information thus gained will permit the proper selection of the tent, which must be freed of the string which is tied to its base. Bend the sponge-tent carrier to the exact curve of the cavity of the neck, push it into the orifice at the base of the tent (this will secure the tent to the carrier), moisten the tip of the tent with a solution of soap, and whilst steadying the womb with the left hand with the vulsellum or hook, insert the tent thus secured, with the right hand, gently into the neck, until all but a quarter of an inch has entered. Now drop the vulsellum, which, being self-retaining, remains in situ; then with the left hand, thus freed, push the brass coil or slide towards the neck of the uterus, while you withdraw the sponge-tent carrier. This movement results in lodging the sponge tent in the neck of the womb. All this must be accomplished without producing pain; nay, more, if the sponge tent causes inconvenience, pain or vomiting, it must be removed and a smaller one inserted, else mischief results. A suppository of cotton, saturated with glycerine, is then inserted into the vagina; a suppository of

morphia and belladona is also introduced into the rectum; a napkin is secured by a T bandage, and the patient is ordered to bed.

A few cautions are here considered necessary, in order to avoid annoyance, insure safety, and ward off danger.

It is essential to ascertain the curve of the uterine cavity by means of the probe, else the tent will get entangled in one of the folds of the cervical mucous membrane, become saturated with fluids and rendered useless.

The uterus, in cases of flexions, should be straightened by means of probangs, armed with sponge, to render the introduction of the tent easy.

Let care be exercised that the tent be not pushed too far within the uterine cervix, else great difficulty and pain will be experienced in its removal.

It sometimes becomes necessary, owing to the non-dilatability of the internal os, which does not yield to the influence of the sponge tent, to use the knife, which is in these cases safer than metallic dilators.

The tent should be removed, if possible, the same day; Sims' rule of removing it in twelve hours is a good one, though it cannot in all instances be performed. Handled in the manner above described, they will neither produce inconvenience nor fetor, if left in situ for twenty-four hours.

Tents are introduced, and it is the constant practice of many physicians to insert them, whilst the patients are in their office. This is bad practice. Whilst it may often be done with impunity, cases will arise where misfortunes will compel the prudent practitioner to regret such a practice. Sims has described such cases, and every surgeon can add his experience in corroboration. They should never be used immediately before or after menstruation, else hæmatocele—a very frequent accident, when any operation, however trivial, is undertaken during that period—may occur. An effusion of blood into the pelvic organs may place our patient's life in jeopardy, and it will be only after many days confinement that this accident is recovered from. Cellulitis is another result of their use, if inflammation of the uterus, ovaries and tubes is present, or if the tents are too large, too frequently repeated, or too rudely inserted. Furthermore, sponge tents should not be used, when, in cases of flexions, adhesions have been formed by previous

inflammations; as peritonitis may be induced. All chances of producing abortions should be avoided, by refraining from their use, until it is positively known that pregnancy does not exist.

The frequent accidents, occurring after the most harmless manipulations in pelvic surgery, in cases where the mishaps could be least expected to take place, should admonish us to use operative procedures only when absolutely necessary, and then with great deliberation. The writer has adopted the following rules, not insisted on in the text books, which will, on trial, be found useful: In chronic uterine disease he relies primarily on general medication; when, however, certain local and sympathetic troubles continue to manifest themselves, which by general consent are considered manifestations of pelvic disease, he uses local measures in conjunction. Should improvement take place, he continues to employ local treatment tentatively, or relinquishes it for the time being, still continuing general treatment; and does not resort to manipulations unless urgent symptoms necessitate their use.

Timely local measures, followed by constitutional treatment, will often break the vicious circle of ailments, which, without pause in their local treatment would but be perpetuated. *The surest index and guide in these cases is the improvement of the health of the patient;* excoriation of the neck, a retroverted or retroflexed uterus, accompanied by pain and the nameless neuralgic concomitants, require local treatment; the same state of affairs, without inconvenience, should not be disturbed. If we act otherwise, and produce hæmatocele, cellulitis, peritonitis, etc., and confine our patient, who, previously to our being called, had attended to her domestic affairs, to her bed for weeks and months, then our professional self-respect will be debased before the tribunal of conscience, and our pockets and reputation will experience a corresponding loss before that of the public.

The removal of the sponge tent is a delicate and important task. It is performed as follows:

Place the patient on her back or side, press the posterior commisure of the vulva back towards the anus, and with forceps remove the cotton wool suppository which will be found white, moist, of a musty odor (not foul or stinking). Introduce Sims' or Nott's speculum, lubricated, not with sweet oil or cold cream, but with fluid toilet soap, (which should always be kept in an open-mouthed phial, and with which the fingers during pelvic operations

should be covered, whenever they are introduced into the vagina or rectum; for whilst it has no odor of its own, it, by its detergent qualities, purges the fingers of adhering impurities); the tent will be seen emerging from the expanded os uteri, dilated to four or five times the diameter it presented in its compressed state. Grasp it with the spring forceps, close the instrument, and leave it in situ whilst removing the speculum, by sliding it over the forceps. Now take the forceps in the right hand, introduce the index finger of the left hand into the vagina along its locked blades, let it sweep gently and firmly around the circumference of the cervix, whilst consentaneously an equally gentle rotatory movement is imparted to the forceps. This will free the sponge tent of its moisture, release the fibres of the sponge from the mucous membrane of the cervix in which it is imbedded, and leave the tent ready for removal in the grasp of the forceps.

The previous manipulations have been performed whilst sitting or kneeling in front of the pelvis; now stand on the right side of the patient, place the left hand on the abdomen, depress the uterus, whilst the index finger of the right hand is introduced into this organ; examine its interior carefully from cervix to fundus, perfect the diagnosis and perform the operation for which the uterus was dilated.

Should the cervix not be sufficiently expanded for the purposes of diagnosis and treatment, introduce another and larger tent, with the same precautions as above detailed.

In some cases the cervix does not permit the entrance of even the smallest sponge tent; here commence the expansion by a very small Bay of Fundy laminaria tent, dipped in warm water, which softens and lubricates it,* and on its removal, this may either be replaced by others of a similar kind, or a larger sponge tent.

Practically we have in this country no choice between the use of the sponge and laminaria tents; for whilst all sizes of excellent carbolized sponge tents may be procured with ease, the shops are but meagerly supplied with an imported article of the English sea tangle, which expands slowly and irregularly, and is withal to be had of a very limited range of lengths.

The Bay of Fundy tangle,† however, is an excellent means of

* Am. Journal of Obstetrics, J. C. Nott, Nov. 1870.

† For an excellent article on this subject see Nott on Laminaria Tents, above quoted.

expansion; but this again is supplied in limited quantities and lengths. Moreover, whilst it requires only one sponge tent, a faggot of two, four or six of laminaria tents is sometimes necessary for the same purpose, and as the price of either article is the same, the tangle tent will be used only in exceptional cases.

The use of the sponge tent as a diagnostic agent has occupied the attention of the writer thus far; the therapeutics of the sponge tent will receive his attention in a succeeding paper.

ARTICLE II.—*On Abdominal or Ileo Typhus.* By CARL PROEGLER, M.D., Aurora, Illinois.

During the siege of Metz, we had quite a number of typhus cases, and I shall try to give my experience in the treatment, etc. I shall not quote the personal cases out of my diary, but give the statement in extenso.

I had over seventy cases under my special charge, twenty-eight of which were very hard cases, twenty medium cases, and the rest of twenty cases we may class under the head of febriculeuse typhus; they generally kept along for three weeks, some even could get discharged from medical treatment within a fortnight.

The whole picture of ileo typhus is so much known, that I scarcely deem it necessary to give a minute symptomatology of the cases which occurred in my wards. But every epidemic has its peculiarities, and it is these which I shall describe.

The beginning of sickness commences with higher temperature of the skin and a great rigidity of the patient experienced in all the limbs; not a feeling of fatigue or lameness, but certain muscular contractions were predominant.

Especially the muscles of the neck and back, which could not very properly be controlled by the patient; the latter did not seem to care much, and after admittance to the hospital, would like to creep about. They all did not like to lie down, and they kept sometimes six to eight days in that condition without coming under the notice of the doctor. No appetite. The tongue became to appearance alike with all the patients. The edges pale red;

the interior of the tongue was covered with a yellow gray or gray coating. The tongue moist; but it cost the patient quite an exertion to show it, and then with tremulous movement.

The expression of the countenance was languid, the eyes lost their lustre, the cheeks redder than usual. By-and-by the head grew heavy and dizzy, preventing the patients walking or going, and only these symptoms would bring them to bed.

In only four cases I noticed headache, being then the only complaint. Sometimes nose bleeding occurred, but not very often or great. Exploration at that time revealed a tumate spleen, sometimes so great that the spleen could palpably be percussed.

Abdomen not very much enlarged, and even by great pressure not very painful; and, strange, the ileo cœcal was painful with only a few. On the contrary, the patients would experience, even with slight pressure, great pain in the regio epigastrica, and around the spleen. Gargouillement was noticed many times, especially in cases with diarrhœa. The latter would not occur oftener than two or three times daily.

The feces were thin, of a dark brown yellow color, not profuse, and of pungent odor.

The pulse was, in intense cases—which I am now especially noticing—very different, ranging from 96 to 128. One very aggravated case, resulting in death, was characterized by a persistent pulse of 104.

With these symptoms the ileo typhus ripens into full bloom—dizziness greater, the expression became more apathetic, with slight delirium.

I have seen quite a good number admitted in these stages, who had done their duty up to the time, but as soon as admitted, or very shortly afterwards, all the symptoms of aggravated typhus made their appearance. Some would sigh unconsciously. One very intense case, with very early and aggravated symptoms of collapse, —where the patients for full six weeks were groaning very loud—with every expiration, like one deeply affected, sighed deeply.

I did not notice much roseola. My patients having been mostly soldiers from the rural districts, and not used to a great cultivation of the skin, it might have been that they were not early visible. Only in a few cases I could detect five or six roseola patches as large as a fleabite.

The hearing of the patients got impaired from day to day, ending in almost complete deafness, even in patients where the sensorium

was perfectly, or in a measure clear, and who were only seemingly languid and fatigued. I was obliged to talk to them very loud to make myself understood, showing that deafness in ileo typhus is a nervous symptom. The patients did not complain of anything except occasional vertigo, especially when I was obliged, for a physical exploration of the lungs, to have them sit up. The tongue got more and more dry, cracked and beefy; only the edges had a curious dark red color, and looked as if they were varnished. I saw only twice a tongue red and varnished without any coating.

The dryness of the tongue is always a good measure of the mental state of the patient; seemingly they do not know that they take too little fluid, or if they know, then they have no will to give expression to the thought and desire for fluids. Both I have noticed, and it seems justifiable to presume that the dryness of tongue has something to do with the mental derangement.

Diarrhœal discharges, like those noticed before, occurred about five or six times every twenty-four hours, and even oftener. In some cases constipation was prevalent, so that castor oil had to be employed.

Nose bleeding occurred often, and I could not help noticing that the patients after every nosebleed had a better expression, and that the sensorium became brighter. Only in two cases I noticed that the patients became paler.

Hemorrhage from the bowels I noticed in eight; all of them had an enlargement of the spleen. The same I noticed in a colleague of mine. He had a very large spleen, and perished by exhaustive nose and intestinal bleeding.

How both these symptoms were connected together, I do not dare to explain. But if future cases should develop an affinity between nasal and rectal bleeding, it would not be impossible that the changes of the blood by anatomical changes of the spleen would lead on the other side to *anomalous changes of the nutrient blood vessels*, so that they may be more easily torn. Bleeding appeared in two ways, either mixed together with the stools, giving the latter a rather chocolate color, or in thick, dark colored clots. It is very probable that the blood, especially in the last cases, comes from the lower part of the intestines. In one case I noticed, together with this hemorrhage, copious diarrhœa, coming so often that the entire bed was always drenched with the dejections. The third week showed a marked decrepitude of the patients, which I hardly ever witnessed in hospital practice before.

The paniculus adiposus went off with rapidity; the patients were pale, emaciated, half or wholly comatose. The countenance haggard and wrinkled, without any expression; they seemed to represent a picture of total indifference. The extremities inclined to coldness; in some cases the feet were entirely cold. Dicrotic pulse; 120 beats and above; the art. radialis not much flexed, somewhat wider; the pulse wave not very high; the sounds of the heart were dull, especially the first sound, which was cracking and hardly to be heard. It is not without intention that I describe these symptoms more closely; they gave me the basis for the therapeutic treatment, and showed that nothing is more foolish at the sick bed than to be guided by some one-side principles concerning therapeutical treatment in one and the same sickness, especially when the same develops itself in individuals who are totally different concerning their mode of living, occupation, etc. Only with the greatest of care did I succeed in warding off collapses. At the same time with the other symptoms the patients had bronchial catarrh, much coughing and tenacious sputa, tormenting the patients a good deal. Thickening of the parenchyma of the lungs in the lower parts, with a dull sound and difficult breathing; only twice I noticed lobular pneumonia. Bed sores I noticed in three cases, and not sooner than the third week; they occurred at the os coccygis, the back, and even the buttock. In two cases the sores were light; in one case the sores reached the bone, with a good deal of loss of substance.

With but few exceptions the delirium was of a mild character; sometimes a patient got out of bed and wanted to go off, but was very easily persuaded to go back to bed. There seemed to be no fixed ideas with any of the patients. It was strange how generally contented they were; if asked how they felt, they would always reply in a kind of careless manner, as though thinking others and not themselves to be affected by sickness.

On account of sickness among the employes of the hospital, I had not always sufficient assistance and could not make thermometrical observations, therefore I endeavored to discover a symptom that could quickly be discerned and that could be taken as the forerunner of recovery.

The careful physician will never depend on single symptoms, because he may be misled by every one of them. The complex of symptoms, and their relation to each other, assure diagnosis and

prognosis. The lowering of temperature may not be an indication of recovery; on the contrary, it might be rather ominous; so with the pulse, but combined together it will give a pretty good test for the patient. I only say this that I may not be accused of having followed blindly single symptoms alone.

It cannot be denied that one symptom may be worth more attention than another; and after a careful observation I noticed that in typhus the appearance of the tongue will be in some measure an indication for a change for the better with the patient.

The symptomatology of the tongue is, like a good many important signs held highly by the older physicians, not now considered of great importance. The exact physico-chemical researches made sad havoc with those merely superficial observations of the old writers of medicine, and the medical art has won generally, but not in every respect. The greater number of our modern doctors who based on physical exploration, have lost sense for the simple, unostentatious and careful observations of the sick. The physico-chemical researches come in the first line, and it being true that the diagnosis has been made sure by help of those means, there are remaining certain things, which cannot physically be proved, but which are highly important for the physician to know. Sometimes one symptom, sometimes the totality of symptoms, will be more useful for therapeutics than the proof that the limits of a pleuritic exudation have increased half an inch, the proof being in the first line important. Especially in typhus there are so many symptoms which cannot be physically, nor by the means of auscultation or percussion, nor with the help of the thermometer, explained; and I have found that the tongue in typhus was a great help to me concerning prognosis and therapeutics. The patient may feel easier in his head, the pulse may become slower, the temperature lower; all these symptoms explain the exact period in which the patient is, but are not an exact indication of the state of the patient, because sudden changes are not very seldom noticed, and the patient remains just so long in danger till the tongue has assumed quite another appearance. The signs of approaching recovery are the following:

The cracked and heavily coated tongue which is dry and sometimes immovable, so that the patient only with an effort can show it, becomes moist and has a slippery touch; the cracks loosen; and what with the extremest cleanliness by washing, etc., could not be effected, nature brings about in a few weeks.

The edges of the tongue get pale red and the middle part whitish gray; the tongue protrudes easy and does not tremble. After a little while the patient experiences some appetite, assuming by and by the character of hunger; the countenence loses its careless habitus, and the patient will now look very pale and emaciated; the eye is bright; head free; sleep quiet and long, firm; stools only once a day and thicker, with quite a normal appearance; the cough gets looser, respiration slower, and expectoration more abundant. The arteries are but slightly flexed, the artery itself narrow; pulse quiet, but rises with the slightest exertion to 120. With favorable circumstances the patient gets into the state of convalescence. In only four cases have I seen a change for the worse after the patient has been in the last described state; two went into regular typhus collapse; the fourth was taken with hemorrhage again, and I could trace his relapse to an error in diet, having received from some one a good deal of cake, and was lying for weeks almost on the point of death; he had bed sores. In the other three cases no errors in diet could be traceable. The re-beginning of the sickness commences with the coating of the tongue, dryness, etc., hot skin, tumor of the spleen, and some roseola. All four cases recovered after a sickness of four months' duration. They were respectively 20 years of age, robust and healthy individuals.

The mortality was about 16.60 per cent.

There has been so much written on the treatment of typhus, that I hardly hope to offer anything new. Only one point I consider of importance. Medicine is and ought to be remembered as natural science in the fullest sense of the word. Taking it in this sense, it requires, firstly, a precise and unbiassed study of nature; and, secondly, to try to find out by all possible means the way of nature. This must not be only a saying with professional men, but it must be truth, hence it has been with all great physicians of all ages; and there is nothing more foolish than to think, that nature can be forced to point out and shape the healing process. I do not want to be understood that I preach *nihilismus* which compares the doctor at the sick bed to an actor, but only the pressing necessities to individualize and diagnosticate every new case according to the indications. Only this point of view will help therapeutics, and only treated in this sense, it may compare favorably with the teachings of diagnosis and prognosis.

Typhus and the treatment of it has led to these remarks, because there is already a tendency to take a single symptom for the whole disease, neglecting, therefore, the individual, and treating it empirically.

Liebermeister, Hagenbach, Jurgensen, and a good many others, are of opinion that by reducing the fever by heroic means typhus will be less dangerous. The results obtained by those authors are unquestionably great, and the treatment ought to convince us of its efficacy. I had already ample opportunity to study in the different clinics, both here and in Europe, the different treatment, and was struck with the great success Traube met in the Berlin Charite Hospital. He did not use cold bathing, but only cold ablutions. Although the cooling off was not as great as by bathing, still the temperature of the body was diminished. There was general improvement—head clearer, pulse slower and fuller, expression more marked, etc.

These observations led me to adopt the same plan of treatment in a military hospital where there being such constant change of nurses I could not use the cold bath and the wet sheet. I had only two occasions to test it. I used either compresses or flexible ice bladders, changing them every five or ten minutes. They were dipped in ice water, and the patient was covered on his chest, abdomen and head with it; having detailed for that purpose quite a number of soldier-nurses. The success I met with was not very great, the patient getting lower in the second and third week, and especially the extremities became cold, the pulse slow and easy, countenance pinched and shallow, so that I had to change. The most aggravated cases showed the symptoms first. Was it that cold compresses are a bad substitute for the hydropathic treatment, or could my patients not stand cold?

Liebermeister asserts, as his observation, that moderate loss of warmth in health and fever will not cause internally the same change, but on the contrary it will give rise to a higher temperature. And only in that way can I explain the effects of my compresses. Covering only the sick part of the body, they took away only a small amount of warmth, leaving the sick process almost unchanged. For the truth of this observation I can vouch, and I think it, therefore, better not to use the hydropathic treatment if it cannot be properly applied. But certainly that will be a debatable point; it may be that those individuals could not stand the hydropathic

treatment. It must be remembered that they were soldiers and mostly French, who had endured a good deal of hardship and privation, and probably had not enough vitality in the system. It was not so much an object to suppress the fever as to feed them as much as possible.

Ex juvantibus, I draw my conclusion.

I used in the beginning: acid hydrochl., (2, 5 : 200,) and chinin, (0, 3) every two hours. For nourishment they had milk, beef tea, (but I had to change soon to strong beef tea), yolk of eggs, wine, etc., especially port and sherry wine. Chinin in small doses was continually used, and I made the observation that small doses of chinin perhaps (0, 6 : 200,) every two hours a tablespoonful, produced a tonic effect, larger doses producing less activity of the heart, and being, therefore, really anti-febrile. The pulse gets slower, even irregular, the radialis loses its flexibility, and the waves gain in height as shown by the sphygmograph. Strong stimulating remedies I used only in collapse, and especially acid benzoic (0, 12), and g. camphor, (0, 06), every two hours one powder.

In two cases I saw quite a remarkable change, patients being almost gone. We did not use musk, on account of its high price, but Traube recommends it highly. In one case only, the repeated use of musk saved the patient (the only case where musk was used), but it should be considered whether diarrhœa is present or not, as the benzoic acid would not do in the latter complication. The quintessence of the treatment consisted in good nourishing diet and heavy wines.

Hemorrhage of the bowels ought to be very carefully watched, and I can recommend highly the liquor ferri sesquichlorid. I gave it very often, every two hours in water, (5 gtt.) The bleeding stopped, and even when it occurred again it had the same effect.

For the diarrhœa I used ext. senna, strych. spirit, (0, 12 : 200), every two hours a tablespoonful, but always given with mucilaginous drinks.

For bedsores I used emplast. saponat., spread on deer skin, and permanganate of potass. (1, 3 : 120.)

ARTICLE III.—*Surgical Clinic of Prof. Gunn.* Reported by Dr. O'BRIEN.

(Inserted in place of our regular notes, which were lost by the fire.)

Saturday, Sept. 30, 1871. Case 1. Web fingers; operation. Prof. Gunn establishes a foramen at root of web, allows it to heal through from dorsal surface to palm, getting continuity of integument there, and so preventing wound from healing up from bottom when rest of web is subsequently divided; if web were simply divided and sides separated, it would fill up from bottom and with difficulty be restored.

Case 2. Miss B. Strabismus; right eye turning in. "Ascertain cause, make careful diagnosis in these cases as between traumatic and other causes." History of this case: she says she had convulsions when young; trouble not always in same eye. "We have here, then, absence of mechanical cause, so it is not cicatrix. Remember the independent nervous supply of the external rectus, it may be paralyzed; if so, let patient try to turn the eye outward and she will be conscious of no attempt of the muscle to move; experimenting with this patient she feels the muscular effort, therefore the external rectus is not paralyzed. Having excluded these conditions, our operation is clearly indicated; we now select the eye to be operated on, and shall be content with improvement; awaiting an operation upon the other eye to complete the cure." Selecting the left eye, Prof. G. raised the conjunctiva, opened it, drew forward the internal rectus and divided it; result of the operation, perfect parallelism of the two eyes, and, so far, no second operation required.

Case 3. Eda R., aet. twelve weeks. Talipes varus of right foot. "When should we operate? Just at the time when the patient is inclined to bear his weight on feet: they will be larger, and patient will bear it better." Prof. G. usually operates when patient is six to nine months old.

Case 4. Catherine M., aet. 6. "On moving right femur we move the whole pelvis, the spinal column seeming to be the centre of motion;" (patient walked before the class, showing the characteristic swing of the whole pelvis along with the limb); "case

therefore, one of hip joint disease." History: cause, a fall; been treated for pain in the knee. Prof. G., tracing the insidious onset of the disease under consideration, reminded the class of the anatomical reason why pain is first referred to the knee, when it should only furnish an index to point out the real difficulty. Enumerating the means of diagnosis, he referred to the involuntary fixing of thigh and its characteristic effect upon the gait in first stage; to the lengthening and eversion in the second; and the inversion and shortening, simulating dislocation, in the third; together, in the latter stage, with usual suppuration and abscess.

Treatment: (pain is a prominent symptom, there is no refreshing sleep.) In first stage, simply fix the joint, using dextrine or starch bandage; give *rest*, the first demand of nature in inflammation; use constitutional treatment in accordance with the state of the child; cod oil, animal food, fresh air, etc. In second stage, straighten leg, using chloroform if necessary; break up adhesions, extend leg with pully, etc., and if you have a good airy room, this treatment may be the best you can give; if you prefer to send patient into open air, put on proper splints, but splints, generally, become painful. Many cases do badly under any treatment; then resect; it promises more than anything else. Our case here requires dextrine splint; it will be applied, and patient put in charge of dispensary staff.

Case 5. Referred to Medical Department.

Case 6. P. K., aet. 35. Abscess at side of rectum; probe does not get into rectum, but the abscess probably entered into it. (Prof. G. described here fistulæ, complete and incomplete); passing bistoury on director to the point reached by probe, he cut out, not into the rectum, because fistula could not yet be traced into it, but at next examination the farthest point of this exploration will be taken as a new departure and fistula traced to its termination; will then, probably, cut into rectum, and plug.

Case 7. Eddie C., aet. 7; traumatic swelling, anterior femoral region; a good opportunity for class to make a diagnosis very frequently called for in practice. Is there constipation? No. Then it is not hernia; it feels and looks like abscess. Prof. G. opens it, giving exit to a large quantity of pus. "If abscess walls are thick, look out for femoral artery; if you fear aneurism, use exploring needle."

Case 8. Mary H., aet. 17; hare-lip. Imperfect operation at age of three months; "another instance where operation might have been postponed for some months;" lower parts of lip still joined, but central portion forming a large unsightly hiatus; left ala of nose drawn away on the cheek. "If, in operating for hare-lip we make straight incisions, there will be left a receding angle at free end of cicatrix, but if we make properly curved incisions, we can leave redundant tissue there." Prof. G. operated; cutting out cicatriced edges, but not dividing the slight point of union below; introduced silk sutures, bringing parts together, ala of nose previously spread out on cheek, coming up to its place handsomely.

Case 9. John M., aet. 6; enlarged humerus, and fistula; had pieces of necrosed bone removed at former clinic; has necrosed bone now, which will be removed at future operation.

[Reporter did not attend subsequent clinic, not anticipating that these scraps might be useful.]

ARTICLE IV.—*Transfusion of Blood.* By CARL PROEGLER, M.D., late Surgeon German Army, Aurora, Illinois.

I have the pleasure to lay before the medical fraternity a few interesting cases of transfusion of blood, and I do it very reluctantly, knowing that our text books contain but very little. There are only twenty cases on record, as far as I know. The late Franco-German war has developed a good many striking features interesting for the surgeon only, not having been noticed during the late American war.

Tremendous battles such as have not been fought since the beginning of known history, and masses hurled together for certain destruction as not even the war era of the first Napoleon can point out, left some physical phenomena, as I would call them. Take only the deaths of the German army, 119,000 men, 3,000 officers, among them quite a good many surgeons, and any one may see that the fighting was done with desperation on either side.

The troops who came out alive from the bloody battles of

Rezanoible, Mary aux Chenes, Mars la Tour, and Gravelotte, experienced strange feelings, dizziness, deafness, nervous irritability, etc. But more so the French troops after routing the Commune.

After being discharged from the medical service of the German army, I wanted to see the other side of the picture, and only by strict adherence to the French and English language, I escaped detection as a German. The scenes after the fall of Paris beggar description—it was an embodied hell on earth. No discipline, no order, nothing. I saw wounded men dying by the dozen for want of attendance. Doctor Lefevre and several Russian gentlemen had a kind of provisory hospital near the Passage Saumon in the neighborhood of the Rue Richelieu, and here it was where I had occasion to try transfusion of blood. Most of the amputated died with secondary hemorrhage, probably produced by the nervous shock and excitement. I can relate only surgical cases, and having had four successful cases, I may without presumption point out, that to my own mind, in all cases where there is a great loss of blood, either produced by wounds, or rectal, pulmonary and uterine bleeding, transfusion ought to be resorted to as the dernier resort.

As transfusion of blood has been but very little practiced, I might be excused for pointing out the indications for transfusion in surgical cases.

1. Where amputation has been delayed on some account, with but little chance for the patient, but where the latter insists upon an operation.

2. Re-amputation or resection on account of pyemia or extreme hemorrhage, either on account of dangerous after-bleeding, general debility, or a hemorrhagic diathesis.

3. Extreme prostration on account of shock, and where life seems to be in imminent danger.

In cases of amputation, provided the patient was, up to the time of operation, a healthy man, his own blood might be taken, and instead of opening a vein in the arm, any of the branches of the saphena can be taken. The blood may be thrown in, in the already cut veins, care being taken to take a vein which has not too large a sheath. Future experience must point out more fully the correctness or otherwise of this view.

If you decide to transfuse blood into the arm, the median basilic is the best. The patient ought to be placed in a recumbent position, so that the blood may flow towards the heart, and then the operator dissects down to the vein, carefully dissecting loose the cellular tissue for about half an inch, and a double thread passed under it, so that the vein may be drawn out, when the operation commences. You may either cut a V-shaped piece out of the vein or cut the vein half through.

The blood when taken from the arm of a person ought to fall into a basin previously warmed with a temperature of about 100°, stirring it slowly with some glass reeds, care being taken not to create any air bubbles. Some authorities use phosphate of soda to prevent coagulation, but I have not used it; the even temperature is the main thing in my mind. After stirring, it ought to be strained through a perfectly clean muslin cloth. The instrument used is a Pravay syringe, made of glass, and holding three ounces, with an india rubber tube and a fine steel or silver nozzle cut like a pen. The amount to be injected varies according to circumstance but it never ought to exceed 16 ounces.

The vein is then put upon a probe, the nozzle carefully held and inserted and closely held by an assistant, care being taken that no air enters. It requires a little skill to do it, but will soon be learned on dogs, etc. I practiced first on cadavers, having an abundance of them.

Case 1. Leautie, French soldier, wounded in the streets of Paris; gunshot wound of the thigh; conservative surgery tried, but on account of deep-seated ulceration, about a week after admission amputation was performed. Operator, Dr. Le Ballier. Patient was of delicate health, but had never been sick previous to admission; nervous sanguineous temperament; pulse before operation, 95; countenance pale, and coming very slowly under the influence of chloroform. On account of his pulse, had to leave off anesthesia. Operation ended without any material changes, but patient lost a good deal of blood in spite of first class assistance in the person of Dr. Boucher, who compressed the femoralis. Pulse feeble, respiration hurried, all the symptoms of approaching collapse, and transfusion was speedily resorted to; used patient's own blood, was stirred with a glass reed, preventing as much as possible the formation of bubbles, and with the proper temperature, strained

through a muslin cloth. I injected about four ounces; and let me say here, that where the blood is injected in the leg, the vein ought always, in cases of amputation, where there is a round and short surface, to be dissected carefully upwards, so that the nozzle of the syringe may be safely inserted, placing the leg high up and the patient low down.

The effect of the transfusion was, in this case, readily seen, and the symptoms became decidedly better. I used in this case altogether, eight ounces. The patient was kept in a recumbent position for a little while, carefully watching the pulse and the heart.

Patient was not removed to his bed until four hours after the operation, feeding him in the meantime with beef tea and wine, and producing artificial heat by warm bottles, etc. Patient made a good recovery. This case would not have stood the fearful loss of blood if transfusion of blood had not taken place.

Case 2. Morrel, French soldier, wounded before Paris by a ball penetrating the left lung between the third and fourth ribs. I have never seen a more hopeless case from the beginning; patient would lose blood every day, and discharged about an ounce of pus during the day from both sides. With the best of treatment, he grew worse. When I saw him he had a frightful attack of hemorrhage from the lungs, the third he had in the course of two days. Pulse 120, breathing hurried, clammy sweat, extremities cold, in fact, all the signs of speedy dissolution.

Ordered internally—sesquichl. of iron and brandy, but without any perceptible change. In consultation with Dr. Bagirsky, Le Vallier, etc., it was concluded to try infusion of blood; the blood was taken from a robust Frenchman. The median basilic was dissected and transfusion began; used with him nine ounces. The appearance after the introduction of the first three ounces was very marked; pulse perceptible and fuller; systolic murmur was heard, etc.

I placed him under the guardianship of a medical student, who watched him carefully for the next two weeks. The patient was doing finely when, through the negligence of the head steward, his room was cleaned, by which he caught cold, inducing double pneumonia, of which he died. It is evident that in this case life was prolonged.

Case 4. Farganier, French soldier, wounded at the tibia, showed signs of pyemia, and amputation was performed. Patient was of a

cachectic tint; pulse, 90; heart's action weak, besides having a hunterian chancre. All of the surgeons were of the opinion that there was but little chance for his recovery. Used the blood of a healthy French peasant, a brother of the patient. Injected, after operation was over, and he gradually began to sink, six ounces in the vein of the leg. With the help of stimulants and proper after-treatment made a recovery.

Our profession has for its great aim the prolongation of life, and if I have contributed something to make death less fearful, or even prolonged life for a few seconds, I have been richly rewarded. For my colleagues it is now to consider these points, and I hope that future experience will reveal perhaps a better method than I could devise.

Dr. W. Betz, of Heilbronn, Germany, tried transfusion of blood successfully in a woman laboring of hemorrhages from the stomach and bowels. In spite of all care, he relates, that two very minute bubbles of air were forced into the veins; the entrance of air was instantly followed by profound collapse, but by the use of cold water and other restoratives the patient was soon revived. The woman ultimately recovered.

As already said, transfusion must not be put off too long, until death is, as it were, already sitting upon the lips. There have been used from one to two pounds, but such quantities produce so much systemic disturbance that it is better not to use more than 16; in the cases related I have not used over eight. I had not to resort in the same subject to transfusion again. The fatal cases died soon after. Any functional disturbances, as headache, etc., following transfusion, should be quieted with hydrate of chloral, morphia, etc.

ARTICLE V.—*Death: Legal and Actual.* By I. N. DANFORTH, M.D., Chicago.

On the 26th of August, 1870, one J. H. Skaggs was hanged at Bloomfield, Stoddard Co., Mo. This cheerful scene "was public, and witnessed by more than twenty-five hundred persons;" every one of whom, we may add, with the exception of those necessarily present, ought to be thoroughly and everlastingly ashamed of themselves.

"At twelve minutes after one o'clock, the platform dropped, and the convict fell a distance of more than six feet. The noose was adjusted to the usual place, but at the drop the rope slipped behind the mastoid process. In three minutes all struggling ceased. At the end of four minutes I found, (says Dr. Robert J. Jackson, of Bloomfield, whose letter, published in the Journal of the Gynæcological Society of Boston, for June, 1871, I am quoting), a distinct fremitus passing over the region of the radial artery, which entirely ceased at the expiration of six and one-half minutes; at the end of four minutes more all signs of life had disappeared and the body was blue; I then pronounced him dead, in which opinion Dr. J. F. McDonald coincided. The body was allowed to hang four minutes longer; in all, fourteen and one-half minutes since the fall. I then suggested the removal, which was at once done."

The body was taken a distance of fifty yards to a room in the court house, and Drs. Jackson and McDonald "proceeded to the experiment of resuscitation." Artificial respiration failing to produce the desired effect, the poles of a galvanic battery were placed over the pneumogastric nerves, and strong currents were "passed into the body at intervals of four seconds; this was soon followed by indications of respiration." At this point, the sheriff interfered, and "ten or fifteen minutes were lost." The experiment was then resumed; but another interruption followed. "At eighteen minutes past two o'clock—writes Dr. Jackson—we again went to work; and in a few minutes the action of the heart and radial pulse were perceptible."

At this juncture the sheriff—who was evidently no baby in the matter of strategy—executed a brilliant flank movement by carrying off the wires belonging to the battery, and this interrupted the

business for the space of thirty-eight minutes. "After recovering the wires and working a short time, Skaggs swallowed a small quantity of brandy and water." Cayenne pepper and whisky were employed to excite the circulation in the extremities; bleeding was resorted to—and, as a result of all this, the pupil contracted, "the pulse assumed a strong and steady action, and the breathing became easier and more regular. He now used the ocular muscles, his eyes following persons around the room. This was more marked at nine o'clock; at which time, by the interference of a mountebank, the opposition of the populace became so violent that we were obliged to relinquish all further experiment. Skaggs lived until four o'clock the next morning." (loc. cit.)

It is pleasant to be assured that at least a portion of the twenty-five hundred spectators maintained a lively interest in this performance up to its final termination: "the room was crowded almost to suffocation during the whole experiment."

In spite of the "wire pulling" of the sheriff, and of the "interference" of the "mountebank," and of the "opposition of the populace," Scaggs would undoubtedly have recovered, had the "proper remedies" been administered. Mr. C. S. Halsey, of Chicago, to whom a report of the case was sent, says that "arnica or perhaps belladonna should have been given at first, and when the pupil contracted, opium seemed indicated." Those physicians, therefore, who propose in future to rob the scaffold of its terrors will do well to take notice that arnica, belladonna and opium are "homœopathic" to hanging, and govern themselves accordingly. I may be pardoned for remarking, by the way, that the "provings" which demonstrated this fact, must form an interesting chapter in the history of homœopathic therapeutics.

Passing by the excessive barbarity of this whole performance on the part of the physicians concerned therein; passing by the weak and shuffling sheriff who permitted this odious business, which it was clearly his duty to arrest, *vi et armis*, if need be; passing by the gaping crowd of twenty-five hundred which stood idly by, neither of which particularly concern the readers of a medical journal, let us glance at a few points which *do* interest us as physicians, from a humanitarian, medical or medico-legal point of view.

From a humanitarian stand-point, this affair must be condemned

as a most ingenious refinement of cruelty. If it shall ever occur to me to be half-hung by some blundering executioner, in the presence of twenty-five hundred people, I pray that Drs. Jackson and McDonald may not be there. I can conceive of no more grievous or terrible burden; I can imagine no more bitter or horrible torture, than to be again invested with thought and memory after having been pronounced guilty by a jury, sentenced by a judge, and ignominiously hung by the neck, in answer to the law's demand. If the attempt be made to defend this resuscitation of Skaggs upon the ground of mercy, the obvious reply must be that it was mercy so disguised by cruelty, that the merciful element is crowded out of sight and hearing. Whatever humanity demands of the physician, it does *not* require that he shall step between the law and the criminal upon whom that law inflicts its penalty. The same principle carried out, would justify the physician in throwing open the prison doors, and, in fact, in practically bidding defiance to all attempts to enforce criminal law. Nor does science either require or sanction any such experiments upon human beings. If any such experiments are needed at all, they can just as easily and just as satisfactorily be performed upon the lower animals. In this case science may, with peculiar appropriateness, protest against being made the apologist for barbarism.

From a medical, or, more correctly, from a physiological standpoint, this case is one of peculiar as well as painful interest. Drs. Jackson and McDonald, being present as medical experts, pronounced Skaggs dead, and then immediately proceeded to demonstrate that he was *not* dead. As a matter of fact, profound asphyxia was mistaken for actual death, and it is highly probable that many criminals have been removed from the gallows under the sanction of medical authority, in like condition. Nor could this be esteemed a proper matter for criticism, even if one were so inclined, as I certainly am not. Two points, however, are of practical importance in this connection. The first is, that in many cases of death by hanging, the neck is not dislocated, and therefore death must occur by the comparatively slow and terribly painful process of strangulation. Criminals in America, who suffer the extreme penalty of the law, are the victims of much professional botch-work. If the case of Skaggs is any criterion, a criminal ought to be thankful who gets himself fairly and honestly executed even by strangulation.

The skill of Jack Ketch, who "worked off" the inmates of Newgate with such dexterity, perished with him, and those who propose to indulge in the luxury of murdering their fellow men, ought to take this fact into consideration beforehand.

In Skaggs' case, writes Dr. Jackson, "the noose was adjusted to the usual place"—wherever that may be—"but at the drop the rope slipped behind the mastoid process." Yet this case is neither the first nor the worst of its kind. In England the attempt was once made to save a criminal by making an incision into the trachea, below the rope, and introducing a tube to permit the continuance of respiration. "After being taken down, blood was drawn from the jugular vein, the malefactor opened his eyes and sighed, but did not recover." (Dean's Medical Jurisprudence, p. 440.)

Mr. Dean relates two other cases, which I quote as follows: one of a "woman in the reign of Henry VI, who remained suspended one whole night, and was still alive, owing, as it was said, to her larynx having been ossified;" and another "of a woman convicted in Edinburgh in 1728, who after having the sentence of the law executed upon her, or attempted so to be, recovered, and afterward lived twenty-five years." (loc. cit.)

The next point of practical interest to physicians who are called upon to attend executions for the purpose of deciding as to the occurrence of death, may here be brought forward: namely, the absence of signs of life does not necessarily prove that death has taken place. The heart's action may have ceased, the pulse may be imperceptible, and yet the victim may not have passed beyond the possibility of resuscitation. In the case of Skaggs "all signs of life had disappeared, and the body was blue;" and yet, under more favorable circumstances, the attempt at resuscitation would have been successful. It seems to me not only a very possible but a very probable thing that, in a vigorous healthy person, who suffers a sudden and violent death, cell-life, or, in older phraseology, "molecular life," continues for some time after all appreciable signs of life have completely ceased. As Carpenter so aptly states it—"somatic death" and "molecular death" do not occur together. (Human Physiology, p. 865.) Each cell possesses an independent life of its own; each cell is a sort of vital magazine, and is therefore capable of living, even though the heart has ceased to act, so long as it can procure the means of growth, and this depends

upon fresh supplies of blood sent to the various cells by the heart. Those phenomena which are suddenly interrupted by execution, such as locomotion, circulation and respiration, are not of themselves *life*, but rather the results of life. The cessation of either or all of them, therefore, does not necessarily or immediately imply death. To state the actual fact in the plainest way, the mere act of hanging, however skillfully performed, does not *immediately* lessen the aggregate of vital force in the individual cells of any organ in the body; and as criminals are commonly executed, actual death only takes place after vitality has been literally choked out of the body. Hence, while it is indeed a terrible fact, it is by no means an inexplicable fact, that it is sometimes possible to resuscitate criminals, after all the ordinary phenomena of life are wholly extinct. A very important practical question presents itself here, namely, how can the occurrence of death be determined with absolute certainty? The ordinary negative signs, as we have seen in the case under consideration, and as experience under similar as well as dissimilar circumstances has often demonstrated before, are not always reliable. Moreover, the dictates of humanity as well as decency—especially at public executions—demand that the malefactor be removed from the scene of his disgrace as soon as possible. On the one hand, the humane physician would shrink from demanding that an execution be prolonged after the extinction of life had become reasonably certain, as indicated by the apparently total absence of signs of life. On the other hand, he has no business there, unless he proposes to perform his duty according to the full and exact intent of the law; and *this* means *actual* not *probable* death. From the very nature of the case, it follows that there *can* be no positive symptoms or signs, which shall clearly and certainly indicate when profound asphyxia (apparent death) has been replaced by actual death. The mere absence of signs cannot properly be called signs;—and this is a question to be decided by negatives alone. No test, which infallibly proves the absence of life, has, to my knowledge, been discovered. The medical expert is therefore reduced to the necessity—disagreeable and painful though it be—of insisting that the criminal remain suspended until there shall be no possibility of resuscitation. In doubtful cases, it seems to me that the presence or absence of muscular contractility, as determined by the electric test properly and skillfully applied,

would aid in determining the question of apparent or real death—especially if the subject were previously vigorous and healthy. One point more deserves mention; the physician who is called to witness an execution, with the understanding that he shall be allowed to experiment upon the criminal subsequently, can scarcely be considered competent to perform his duties impartially. He attempts at once to execute and to thwart the law. When the sheriff promises the physician the opportunity for experimentation he offers a direct premium for the poorest possible services, and, more than that, he adds to an odious duty, a needless and inexcusable cruelty.

Considered in its medico-legal relations, the case of Skaggs is one of great as well as novel interest. According to Dr. Horatio R. Storer, of Boston—an authority of undoubted excellence in medical jurisprudence—if an executed criminal be formally pronounced dead and surrendered as such by the sheriff, if he be afterwards reanimated, he is entitled to his life, having technically fulfilled the requirements of the law. This may possibly stand the test of law—or rather of legal quibbling, unjustly dignified by the name of law—but it is very frivolous common sense. It amounts to saying that a man may be *legally* dead and *actually* alive. Under other, but far different circumstances, this sometimes is the case. If a man be sentenced to imprisonment for life, the law no longer recognizes him. He no longer possesses any legal rights, and therefore no longer needs the protection of law; hence his life *legally* ceases and determines with his incarceration. But the case of a resuscitated criminal is a far different one. If he regains his life, he also regains his liberty, and with it some of the powers which pertain to life and liberty. The law may indeed refuse him the highest privileges of citizenship, but the commission of fresh crimes will *compel* the law to recognize him. The commission of crime means the transgression of law; the transgression of law means punishment *by* law and according *to* law, and this secures to the criminal one of the highest privileges which the law can confer—namely, trial by jury; and I apprehend it would make little difference whether the accused had been previously asphyxiated or not, or if so, whether the asphyxia was produced by the hangman's noose, or by carbonic acid gas, or by tumbling into Chicago river. In point of inexorable fact, therefore, whatever

the theory may be, no man can be legally dead, so long as he possesses the power to harm his fellow men. The criminal imprisoned for life, is legally dead *provided his sentence be literally executed;* but let him regain his liberty, either by escape or through the intervention of the pardoning power, and he instantly becomes legally alive—that is, amenable to law. When he regains the privileges of liberty he also reassumes the responsibilities of liberty.

If the position of Dr. Carroll of the *New York Medical Gazette*—that, when a criminal supposed to be dead shall "prove not to be dead," it will be the duty of the sheriff to "hang him over again,"—be not a correct position, it certainly deserves to be. If the law, which clearly demands *death*, can legally accept asphyxia in place thereof, then language becomes meaningless and powerless. If law can accept an *intention*—honest though it be—for an *actuality;* if it can accept the *intention* to fulfill its requirements for the *actual* fulfillment thereof, in one case, it can in all cases. Let this doctrine be once established, and we shall have a standing premium for all manner of shuffling trickery, to evade the literal demands of law. Let the doctrine be once established that the laws against crime may be executed according to the whimsical interpretations of men, rather than their strict and literal meaning, and society will be turned upside down. The law must say precisely what it means, and mean precisely what it says, and it must be executed by the actual and literal and perfect, not *intended*, performance of its requirements, or, instead of a government based upon law, we shall have anarchy and confusion. Again, if the position of Dr. Storer can be successfully defended, how can that sheriff justify himself who kills his victim outright hereafter? or how can that physician justify himself who witnesses and sanctions the absolute destruction of life on the gallows? In other words, if a good sound choking satisfies the law's demand, when accompanied by the usual formalities incident to hanging, do not the medical expert and the sheriff needlessly and wantonly destroy life when they do more than administer the choking? and if life be needlessly and wantonly destroyed, is it not likewise criminally destroyed? There is no escape from this conclusion, unless logic and law have parted company forever. Criminals cannot be legally hung and legally half-hung, in answer to the demands of precisely the same

law, for the commission of precisely the same crime, nor can any useless formalities, or idle mummeries, performed by sheriff or physicians, bring falsehood out of fact, or fact out of falsehood.

But, admitting for a moment the logic upon which Dr. Storer's interpretation of the law is founded, a question of considerable practical interest—at least to the resuscitated criminal—presents itself: namely, the question of his own identity. If, by reason of having been asphyxiated under sanction of law, he is thenceforth to be regarded as one dead, he must of course lose his own personality as a member of society. If he loses his own identity, whose identity does he gain? Is he *himself* or somebody else? He must certainly buy at least food and raiment, and he must certainly sell the products either of his head or his hands, and these are transactions amazingly like those of persons not only alive but legally alive. By improving slightly upon the fiction of the law in both directions, however, we can very comfortably escape from our dilemma without in the least damaging its value or truthfulness—or falsity either, for the matter of that. If we substitute death for asphyxia, (following the example of the physicians who watched the demise (!) of Skaggs,) and resurrection for resuscitation, we shall thus find plain sailing, for a resurrected person can resume his former identity without permission of law—at least so far as experience has thrown any light upon the subject. Exactly how resurrections under such circumstances should be conducted, it is difficult to say, but probably "galvanism" and "bleeding," especially when aided by "cayenne pepper and whisky," will prove as effectual as anything. Precisely how resurrected criminals may be expected to conduct themselves we are still slightly in the dark, but it is more than likely that the most of them would naturally commence life anew by "swallowing a small quantity of brandy and water."

The case which I have considered stands not alone. The city of Philadelphia, with all its culture and civilization, has permitted a similar performance to be enacted, if my memory serves me correctly, in the amphitheater of the Jefferson Medical College. It would seem, therefore, that the luxury of experimenting upon the bodies of executed or half-executed criminals, is gradually coming to be regarded as a kind of perquisite, belonging to the physicians called upon to assist in executions. Such experiments are wrong

in principle, unjustifiable and barbarous in practice, and without adequate benefit to science or humanity. On these grounds, then, they ought to be stopped at once and forever. Whatever may or may not be done to the mutilated body of the malefactor in a Christian land, one thing is certain: the medical profession ought to repudiate and sternly condemn a procedure so odious and disgusting, as the one which has given rise to this present article, and one which, if repeated, is so certain to bring deserved censure and odium, not alone upon those who are immediately concerned therein, but, to a greater or less extent, upon the profession as a whole.

Correspondence.

Modern Tendency of Homœopathy.

My Dear Professor—Some one recently asked for light on homœopathy; your October Journal doubtless contained it, but as it has been swallowed up in the great fire, I hereby propose to triturate homœopathy a little and to essay a picture of that attenuated fraud as it stands at present.

Homœopathists who wish to succeed now, find it necessary to be graduates of regular colleges, and further, they find it necessary to practice regular medicine, at least to some extent; complying with these requirements, they use the name homœopathy as an *open sesame* to the purses of the credulous, and often accomplish fortune.

There are those who still believe religiously in the doctrines of Hahnemann; yes, who believe in the infallible efficacy of potencies diluted to an extent of which Hahnemann never dreamed; they form the bulk of the "profession;" their gushing faith fills homœopathic journals, their enthusiastic conversation revives our confidence in the existence still of innocence and simplicity, but they don't *succeed;* the world has gotten beyond that point of credulity, it still seeks the names of these false gods but not their faith.

I have sought for good in homœopathy, have heard lectures upon it, read Hahnemann and other authorities, and, lastly, have interviewed the best homœopathist I could find, telling him that I wanted to find out if there were anything good in it, and if there were, to adopt it. I asked for a case of disease and homœopathic treatment; he gave intermittent, said that rhus, cinchona, etc., would produce similar symptoms in health.

Q. We use cinchona; what dose do you use it in?

A. "One drop of tincture in teaspoonful of water every hour."

Q. Does it break the chill?

A. "Yes, in a few days."

Q. Not at once?

A. "Sometimes it does at once, but nearly always in a few days."

Q. Ague is rare and mild here, we never fail to stop it at once, not letting patient have another chill.

A. "Rarity and mildness of ague admitted."

Q. You say you stop chills in a few days; we stop them at once with quinia; here we seem to have an advantage over you. How does an infinitesimal dose of cinchona act?

A. "I don't know; how does a large dose act?"

(*Argumentum ad hominem.*)

Ans. continued: "They theorize on the subject, but I think it is wrong to do so; they say dilution frees force, that division and trituration develop dynamics."

Q. This seems to be sticking to the doctrines of Hahnemann. Are his maxims still regarded as orthodox in your school?

A. "Yes, they are still the law, and dilutions are now carried much higher than they were by Hahnemann."

Q. Do you believe in these dilutions?

A. "I can scarcely believe in them."

"It is contended by some that the original drug contains a spiritual agent, which is the truly curative power of the drug, and is developed or set free by the triturating and shaking processes; others contend that the development of the curative powers of a drug is a purely mechanical thing, and that the mechanical breaking up of the constituent particles of the drug constitutes that development. By the former these successive developments of the

original substance are called *dynamizations* or *potentizations;* by the latter, *attenuations."—Jahr & Gruner's Homœopathic Pharmacopœia.*

(The above interview was with one of the latter class—an intelligent gentleman and excellent surgeon.)

Interview with one of the former, the more numerous class:

Dynamizationist. "We use many drugs that you do; instance, rhubarb in dysentery."

Q. Why do you use it?

A. "It produces symptoms of dysentery in health."

Philosophic reason; *cæli cælorum!* Suppose that a man is suffering extensive perturbations in the dynamics that vibrate around the sigmoid flexure of the colon, having congestion there, caused by the presence of a load of green apples, shall we attempt a neutralizing perturbation of those dynamics with the microscopic fraction of a grain of rhubarb? or shall we remove those apples, correct the changed structure of the inflamed part, and cause pain to vanish with the sulphureted hydrogen, like the baseless fabric of a vision leaving not a rack behind?

Our homœopathic friends believe that force obtains more freedom and becomes therefore more potent as it is attenuated; for instance, a grain of zinc is an aggregation of material atoms, around each of which, atoms of force exist; they believe that if this grain of zinc could be dissolved in 100 drops of water that there would be less force in the solution than if one drop were taken from it and mixed with another 100 drops of water, and that this second "potency" would not be so potent as the third, and so on; this belief is indicated in almost every case recorded by homœopathists. If it were true, a current of force sufficient to work the Atlantic cable ought to be increased by attenuating the zinc in its battery, but methinks electricians would be somewhat astonished if told that attenuating their zinc would develop more dynamics. The Atlantic cable has been worked by a battery composed of a percussion cap, but, sad to say, the current was not any stronger than when 30 cups of *Grove* were used, but on the contrary, was weak exactly in proportion to the attenuation of the zinc, and I affirm that if zinc $\frac{30}{}$ were used, the amount of force given off would not be appreciated by a dynamometer if its delicacy were multiplied

by all the figures in mathematics. Here is a fair test; if homœopathists can develop dynamics by attenuation, let them develop it in the form of electricity, or heat, or light, or any other form that can be appreciated; and here let us ask them what form of force do their potencies develop in the body? Is it nerve force, or electricity, or what? Force is a unit; there are differences in degree (of motion) not in kind (of force); these degrees are convertible by changing structure;* please then, dear dynamizationists, convert the force which you say zinc $\frac{30}{}$ produces in the body, into magnetism or *something*, and *increase* it as you attenuate your zinc, say to $0\frac{60}{}$ or $0\frac{200}{}$; failing to do this, will you forever hold, etc.? or will you still talk of Jolly's experiment with water and saltpetre? (in which water decreased in volume on the addition of said salt.) Grauvogl, in his text book of homœopathy, puts it in this light: If it requires 940 atmospheres to compress water, a solution of saltpetre is equal in force to 940 atmospheres, if it does the same work. This is as good as saying, that if it requires the blow of a sledge hammer to kill a man, a grain of arsenic is as strong as a horse if *it* kills a patient. "Like produces like," but how about the *like circumstances*, how about the essential relation? Is there any relation between the manner in which saltpetre acts and the action of 940 atmospheres in a pump?

But our friends decry chemistry, it is too gross for them, the human laboratory is the perfect thing for demonstrating the dynamics of the infinitesimal; casting aside all calculations based upon chemistry or mathematics, they appeal to experiment alone. Grauvogl says: "When I began the study of homœopathy, the rock of the attenuation question on which so many of our adversaries' heads have suffered shipwreck, was to me an object never worthy of consideration; * * * *. The laws touching the proportion between matter and vehicle interested me the less because I had first of all to discover by experiment and observation the laws of relation between these homœopathic attenuations and my own organism, hence I proved on myself, etc. * * * *; these experiments and observations had driven from me forever

* Under the laws of correlation of force; instance, battery producing heat or electricity by varying structure of zinc, and producing light by another slight change.

all doubts about the efficacy of homœopathic attenuations, I gave myself no further trouble about the well known mathematical description of these attenuations which were sufficient to frighten so many away."

Here is the final appeal, viz.: to experience, or should we not say to imagination, morbid attention, and sleeplessness?

Having thus seen our homœopathic friends place themselves in outer darkness, hiding their little arrangements from the light of chemistry as well as physiology, it only remains for us to investigate their last resort, experience, as recorded in their journals. And here I had intended to transcribe 17 or 18 cases from infallible homœopathic journals, taking them in rotation just as presented, to show that their treatment bore about as much relation to recovery as cunderango to the siege of Paris; but those transcriptions have now evaporated to the home of the fire fiend, so the brethren must read for themselves; and O, dear brethren, are our own skirts clear here? and will not some coming homœopath elevate *my* Mansard and furnish *me* with a gutta percha aural apparatus on the strength of "heroic opiates," "sedative purges," and other idolatries worshiped by our own routinists?

I have not thought it necessary to *satirize* homœopathy; that has been done so thoroughly that I rather feared plagiarism therein. I might have mentioned that salt hath 687 symptoms, that I find 100 symptoms given as a few of those of the larynx, with 500 arrangements of "remedies" *indicated* therefor; might have quoted "CIMEX LECTULARIUS (bedbug). We crush the insect while alive, and macerate it in alcohol."—*Jahr & Gruner's Hom. Pharmacopœia;* but mute horror prevents further progress in this direction. Homœopathy hath a dictionary of symptoms, it is an immense thing, they refer to it in every case; no exercise for reason or judgment, only for memory; no account is made of structure as influencing disease, only "perturbation of dynamics."

I have thus endeavored to photograph the prominent points of modern homœopathy, touching the attenuation question, for which I have suggested a test that I think will be appreciated by students of force and its manifestations, referring to experience, the final resort of homœopathists, upon which their journals are living satires, and indicating the tendency of the present time, which is for intelligent homœopathists to discard everything homœopathic but the name, the only good thing I can find in it, and the only

advantage they have over us. I apprehend that homœopathy thus shown is not to be cured by persecution, nor yet to be killed by hugging it to death as some have recommended, but that it will perish of *inanition* as soon as we can apply a cure for the chronic stupidity of our own dogmatic empirics who are of drugs druggy, which cure is pathology, and I do not know, my dear professor, how we are to hasten this consummation unless you write a book upon the principles of medicine.

When all our physicians under the enlightened teaching of this age shall discard the mysterious and supernatural, and shall practice upon certain knowledge of "what is the matter," ceasing to give drugs because they are said to be "good for it," but using the active agents of the Materia Medica to produce definite results upon organic structure, or as exceptions, when overwhelming evidence attests their efficacy; then, I think, the success of physiological medicine will leave no room in public favor for such speculative follies as homœopathy.

Respectfully, J.

CHICAGO, Oct. 20, 1871.

DEAR PROFESSOR—The zeal of your aged correspondent in behalf of homœopathy is quite amusing; and as he seems to desire information as to why the regular practitioners (of the old school of Hippocrates and Sydenham, of common sense as well as science), are opposed to homœopathy, I will try and inform him. In the *Medical and Surgical Reporter* for April 1st, 1871, our antiquated friend will find the legal definition of a quack, by the Supreme Court of New York, to be, "Whoever offers to practice homœopathy or allopathy as his patients may wish, is practically a *quack* in his profession."

We commend this to the consideration of our aged friend and to those numerous doctors who "have studied both schools and find good in both," as they delight in informing their patients—*Ex pede Herculem.*

We will not attempt to reply to his arguments seriatim, but will try and give a general review of the subject in a familiar and colloquial style.

Firstly, of the system of homœopathy what most staggers our judgment is the infinitesimal smallness of the doses. And as to these minute doses, for the physical efficacy of which they vouch so manfully, I have a few things to object. They say that it is a well ascertained fact that the ten-thousandth part of a grain of antimony will produce an appreciable effect, as that a scruple will; or as certain as any fact in the range of inductive science. I doubt it; I can and must judge, principally, from my own consciousness, though not from that alone. I take your prescribed globule, and cannot find that it produces the slightest effect upon me. I am willing to take any of your decillionths of grains from one to fifty. I have done so, and I do not find the effects assigned follow from these minute elements, and this experience is universal. They may say that the experience of others is different; that they find the minute doses palpably "potential;" that the effects of even a decillionth of some substances have been appreciable. No such averments can annul the *negative* instances I have mentioned; for your inference on the positive side, may easily be the fallacy—"*Non causa pro causa.*"

For example, the peristaltic action is often slightly increased by the mere imagining that medicine has been taken when it has not; many other processes are quickened by fancy; in many, again, all that is required is, instead of taking medicine, to use a little patience, and nature will perform her wonted task without the *globules*, and will doubtless perform it none the less *because* of the globules.

I have known a patient troubled with insomnia take his invaluable "minutissimum" of a soporific—his narcotic atom—and congratulate himself next morning that, after only two hours or so of restlessness he fell into a calm sleep—all owing, of course, to the viaticum of a globule!

I, on the other hand, equally troubled with sleeplessness, perform the same feat perpetually without any globule at all.

The simple solution is, that both parties are wearied out and at last go to sleep. Now, I can account for the effects in many such cases, without supposing your globule has had anything to do with them; but I cannot account for the *want* of effect in the negative instances; that is, where your globules to all consciousness produce none. They may reply that there are cases in which large doses fail of their effects. I grant it; there are no doubt cases in which the effect is intercepted by special causes; but we must go by

general *induction*, and five grains of opium, or two scruples of rhei, will effectually convince nine hundred and ninety-nine out of every thousand that they have taken something. The difference in the two cases is, that those who venture to say they are conscious of the effects of your decillionths are, so far as I know, very rare exceptions; while of those who take the larger doses, the rare exceptions are those who are not affected; that is the general rule, and the exceptions change places. Again, when the larger doses fail of their general effect they leave potent signs to consciousness that something has been taken; whereas I can take one or ten of your decillionths of a grain every hour for four and twenty hours together without any conscious effects whatever; and other people have similar obstinate experience.

Another doubt I feel as to your infinitesimal doses is this. How can you be sure that you have administered them—that they have got into the patient's stomach at all? If they have not got there, I admit they will produce no more effect than they usually do when they *have* got there. But I know not how to be sure that they have reached their destination. They may, like the globule which was arrested in the hollow tooth of Hahnemann's patient, (his solitary fatal case!) be waylaid by a million obstacles, each too much for the poor little atom.

Moreover, I cannot comprehend, on Hahnemann's theory, how we can remain in health a day, since we must be taking all day long, through our lungs and in our food (especially in these days of adulteration), your minute doses of the most deleterious substances. If they say, according to the usual assumption (and it is nothing more,) that they will only affect the person in disease, and not in health, then when he is out of health, positively ill, and under treatment, these potent though inappreciable agents must come into play, and I think must confound your therapeutics. If they say they all happily neutralize one another, I suppose your little globule will be but another element among them, and must, I think, get neutralized too: certainly you know as little what becomes of *it*, as of them.

At all events it is clear, that if such a chance medley of potent "infinitesimals" *can* thus happily neutralize one another, anything like a calculable administration of your solitary infinitesimal is out of the question.

One need not be surprised at the homœopathist, the contents of whose "medicine chest" his children got hold of, played with and jumbled together (all unknown to him), who went on practicing with the same success as before.

The oddest part of Hahnemann's absurd theory of "dynamization" is, that infinitesimal doses are not only potent, but potent in the ratio of their minuteness. According to this, the "second, third, fourth, etc., orders of infinitesimals" (as mathematicians would say), are progressively powerful; in proportion, it seems, as an atom becomes more attenuated—nearer to nothing, it becomes so much more efficacious! Just as it vanishes, I presume it must be—omnipotent!

Nothing can exceed this doctrine except it is Hegel's philosophical paradox: Nothing—Being. If their theory be true, I marvel at the usual language of the homœopathists, who speak of the higher dilutions in the order of feebleness, not of potency, and tell a patient not to venture in such a case on anything stronger than number thirty.

To be consistent, they ought rather to enlarge than to diminish their doses, where they wish to diminish the effect. Nay—surely a scruple of strychniæ ought to produce less effect than a grain—and a grain than a trecillionth of it.

But there is one statement in our venerable friend's communication which I cannot let pass without special comment. He says, "homœopathy has taught us two things, that sick people will recover with small amounts of medicine or none at all." Or, in other words, the public are indebted to the theory of minute doses for a modification in the practice of the "old school;" that it has abridged that wholesale exhibition of drugs which used to be the fashion, and which turned many a patient's stomach into a drug shop.

I am really pleased to believe that the rivalry between the medical factions has been attended with some such effects. At the same time do not flatter yourself that the revolution is greater than it is. Too much physic used to be given, that is certain, but do not suppose all was physic that was taken.

Rely on it—as many a medical man's confession, if ingenuous, would show us—that it was not left to the homœopathists to discover the virtues of a placebo, or in other words to find out the

art of doing nothing, under the pretence of doing something, just to amuse a patient; *vixerunt fortes ante Agamemona;* millions of innocent draughts of infusions of roses—and drams of syrup, quite as harmless as your globules, used to travel down the throats of patients simply because they *would* have something, and—"*Populus vult decipi et decipietur.*"

The only difference between the two classes of practitioners often is, that the one charges in the direct proportion of the innocent bulky nothing, and your friends charge in the inverse proportion of the innocent infinitesimal nothing. It was, I grant, rather an absurd practice, but it was used only as a *dernier ressort*, for many patients would not be cured unless they swallowed all this nothing, and what is more important to the doctor, would not pay unless they had as they thought "value received" in the shape of the material drugs, instead of reckoning their true debt to his visits and his skill. But be assured, my dear "Senex," that the essence of this branch of the art—of doing nothing under imposing forms—was understood long before homœopathy was born, and will be understood as long as the credulity of patients shall demand that something shall be done, when the physician knows that nothing need be.

One of their negative arguments is, "If the globules do no good, they cannot, on *our* theory, do harm." I fear there are many cases, and I have seen some, where your globules have done much harm by preventing anything good being done;—where symptoms that required prompt treatment, were dawdled with until the disease got strength and it was too late to do anything. I must also express my conviction that your doctors have an incomparable knack at making hypochondriacs; and I think very naturally. How should it be otherwise? Your system teaches a patient to believe that his life is ever at the mercy of infinitesimal elements and infinitesimal changes. Can he be other than hypersensitive about matters which never trouble other people's sleep? Certainly, as far as I have observed, there are no people in the world who require the doctor, or take medicine so often as the devotees of homœopathy; hardly a day passes without the medicine chest. Well for them that it contains nothing!

Similarly, nobody is so sensitive about all kinds of innocent changes of air and diet. For my own part, it would be a torment

to live on the terms of some of the votaries of your infinitesimal doses, whom I have known.

However, I admit that such individuals are to be met with among the patients of the regular practitioners, though I think your system is especially adapted to befool a nervous temperament and stimulate a morbid fancy. I handsomely concede that there are classes of patients to whom your practice may be beneficial.

Firstly, I think it is of admirable use for those patients—and there are many—*who have nothing the matter with them ;* for as they will take physic and require none, it is better they should take nothing though they think it something—at the same time it must be said, bread pills might on the other system do the work of nothing just as well. Secondly, for those who suffer from anomalous conditions of the nervous system, amenable in a measure to the fancy (as they often seem to arise from it), but whose symptoms baffle all rational treatment. It is often important that these patients be amused with the appearance of something being done—though here again the more bulky vehicles of *nothing* may do as well, for aught I can see, as the infinitesimals. Thirdly, for those who have, indeed, something the matter with them, but whose symptoms are so obscure that a wise physician is afraid to do anything lest he do mischief; while yet (as usual) the patient insists that something shall be done. Now here the globulets (if I may venture on the double diminutive) are admirable, I admit; though, again, the more corpulent pill of *micæ panis* may be just as efficacious.

In short, as long as patients are so credulous in their reliance upon medicine as to insist that when the doctor knows that nothing need be done, or can be done, he shall yet do something, I see no help but in the exhibition of a placebo. If it be gravely argued that it is unworthy of a physician to administer a system of delusion, and that he had better leave his patient uncured than cheat him into health, it is a pleasant question of casuistry, which the doctor may, if he chooses, discuss in a clinical lecture and see what his patient says to it.

It is in vain, my learned doctor, that you reiterate that you have "seen the good effects" of your darling globules—"that you have

seen your nieces, nephews"—*ad infinitum*, recovered under their use.

I have no difficulty in believing any facts merely on account of their mystery, and if on a fair induction more patients were discovered to be cured by your system than any other, I should believe in it, were it (if that be possible) ten times as mysterious. But a single case or two, or any man's private experience, does not by any means entitle him to speak *ex cathedra* on the subject, and is not worth a fig in the controversy either way; for the simple reason that every system of medicine might be proved equally efficacious on the same ground.

The Wit and Poet of our profession, Professor O. W. Holmes, in a lecture some time since, made use of the following language, which is quite apropos: "What is the honest truth about the medical art? That by far the largest number of diseases which physicians are called to treat will get well at any rate, even in spite of reasonably bad treatment. That of the other fraction a certain number will inevitably die, whatever is done. That there remains a small margin of cases where the life of the patient depends on the skill of the physician. That drugs now and then save life; that they often shorten disease and remove symptoms; but that they are second in importance to food, air, temperature, and other hygienic influences."

A very common fallacy is, that of "*non causa pro causa*," and especially in medicine, where a plurality of causes or *apparent* causes may perpetually mislead.

To the generality of men, it is enough if a certain antecedent has preceded a certain consequent, to satisfy them that there is the relation of cause and effect. Hence numberless fantastic remedies which different ages and nations have prescribed as useful merely because their employment has happened to be nearly coincident with the cure, though they have no more caused it than the cock's crowing causes the sun to rise.

The credulous association of a mere antecedent of the cure with the cause of it, (which is almost universal with patients,) is, it must be allowed, too much encouraged, by doctors of all kinds. Nothing is more common in reports of cases than to find an improvement attributed undoubtingly to the administration of

such a remedy, when the difficulty is really to establish the connection.

If the patient gets worse after the medicine, we never find this sequence insisted on; though, for anything we know, it might be just as reasonably. "Ah!" says a patient, "it was a good thing I called in the doctor; he cured me." If he is cured without any doctor at all, he thinks nothing of it.

When the patient recovers, the doctor gets rid of the disease in spite of nature; when the patient dies, nature gets rid of the patient in spite of the doctor! How do we know how often the statement ought to be reversed; how often nature saved the patient in spite of the doctor, and how often the doctor killed the patient in spite of nature.

You may infer that I am sceptical as to the use of medicine altogether; you will infer falsely then. I do believe that the great majority of ordinary attacks of disease would be cured without the aid of the physician, and that the great agent of cure is the *vis medicatrix*, with which our Creator has fenced the human organism, and by which it stoutly resists every incursion of disease.

But I believe there is a noble sphere for the physician, too; though I frankly confess that from the extreme difficulty of a really comprehensive induction—of establishing the true connection of antecedent and consequent, and from the infinitely variable, evanescent phenomena the science of the practice of medicine has to deal with—it will yet be many years before it will attain the certainty of an exact science.

Nevertheless, the wise physician has plenty to do—especially if he will not promise or attempt too much; if he will but be content to be the cautious *naturæ minister*, and stand by with the hope of aiding those processes within us, so many of which transcend all his art, and which, if he be rash, he may more easily hinder than help; or if, in a word, he takes that view of his position to which "old experience does attain," and which, in the language of Dr. Forbes, will lead him to acquiesce "in a mild tentative or *expectant* mode of practice," certain to appear wise "in old age, whatever may have been the vigorous or heroic doings of youth."

Surely we must allow that even if the physician only alleviates

pain and abridges processes which might otherwise be tedious, he is well worth all his fees. Nor less if he takes charge of us in *health*, and, studying its general physiological conditions, endeavors to keep us well.

In truth, paradoxical as it may seem, it is in health that we ought chiefly to look to the physician and to avail ourselves of his skill. We should listen to what he says about how we are to keep out of his hands, about regimen, diet, hours, occupation, etc.; and the next best thing is, to consult him, not when we *are*, but when we are *going to be*, ill; when we are getting "out of health," as the phrase is.

As to the universal principle of homœopathy, I must say that the assertion of one "universal principle" on which all diseases are to be cured, (like "similia similibus curantur") has a mighty occult quackish sound, and looks more worthy Paracelsus than Bacon.

Neither is it quite fair for Hahnnemann to charge all other practitioners with uniformly proceeding on some one opposite principle, as "allopathy or antipathy," for neither homœopathy or allopathy was ever heard of till he chose to invent the terms, and, taking one himself, gave the other to all the rest of the medical world.

People may call themselves what they please, but if they apply a term to their neighbors, they should see that it is one that belongs to them.

The medical profession, as represented by the American Medical Association, for instance, or by the teachers in the leading universities and medical colleges of the country, are not "allopathists" at all; but if they must have a Greek name of this pattern, they are *pantopathists;* that is, they profess only this simple doctrine, *to employ any agency which experience shows to be useful in the treatment of disease.* Anything that can make a decent show for itself is sure of a trial at their hands.

Remember this, then, that the medical profession, fairly enough represented by the bodies I have mentioned, have no theory or doctrine which prevents them from using *anything that will do you good.*

If they do not adopt this or that alleged remedy it is because they do not think a case is made out in its favor. They consider the witnesses incompetent or dishonest, it may be, or the evidence

wholly unsatisfactory on its own showing. Our friend seems anxious to borrow some remedies from the disciples of Hahnnemann. Does he remember how rapidly any real discovery is appropriated and comes into universal use? Take anæsthetics (mercifully granted to a world grown sensitive in proportion to its culture); take the use of the bromide of potassium; and see how easily they obtained acceptance.

If he is disposed to think any of the fancy systems has brought forward any new remedy of value, which the medical profession has been slow to accept, I ask him to name it. Let him name one—the best his system claims—a single new, efficient, trustworthy remedy, which the medical profession can test by the *experimentum crucis*, as they are ready to test before any scientific tribunal, opium, quinine, ether, bromide of potassium. There is no such remedy on which any of the fancy practitioners dare stake his reputation. If there were, it would long ago have been accepted, though it had been flowers of brimstone from the borders of Styx or Cocytus.

Pardon me, if, in conclusion, I just hint that the writing of defences of homœopathy, by a practitioner who claims to be a "regular," is, to say the least of it, rather quackish, and altogether uncalled for.

If our friend "Senex" was as zealous in behalf of legitimate medicine as he is for homœopathy, he would soon find himself *au courant* with the vanguard in the onward march of practical medicine, and far beyond the pale of such an *ignis fatuus* as homœopathy. For in his zeal he has become quite a homœopathic knight-errant or evangelist. But if I were a homœopathic doctor I should say of all such amateurs, "*Non tali auxilio.*"

Respectfully yours,

William E. Brandt, M.D.

Hanover, Indiana.

Selections.

Management of the Obstetrical Forceps. By C. C. P. Clark, M.D., Oswego, N. Y. A Paper read before the New York State Medical Society.

In the fast growing and ambitious cities of the West, it may often be noticed that more attention is given to laying out and grading new streets, than to keeping in good condition the old thoroughfares of daily business. In these last, masses of refuse will be seen to hide a dilapidated pavement, while far out on the city's verge the surveyor and the paver are busy.

In our own art, if I mistake not, there is, in like manner, an eager pursuit of novelties, to the harmful neglect of principles and methods that are of daily application. I shall offer in this article some reasons for thinking that the rules and modes of using the obstetrical forceps have suffered this neglect, and I shall make some suggestions for their improvement.

Notwithstanding the indisputable fact that only a few experienced obstetricians acquire such dexterity and confidence in the use of the forceps as to resort to it freely, it may still be truly said that the whole armory of our art furnishes few instruments that are so useful in saving life and in lessening suffering. I think it furnishes none that are so capable of serving these ends. It fails of doing all it might do, because of the real or supposed difficulties and dangers that attend its use. Many an obstetrician, skilled and ready in everything else, is afraid of the forceps. Distrusting his own dexterity, and fearful of possible evils, he rarely or never resorts to this instrument. To the neophyte it is a terror.

I think the consciousness of my young readers and the recollection of their elders will give consent when I say that no operation in instrumental therapeutics is more dreaded by the novice than the delivery of a parturient by the forceps. I, for one, shall never forget the anxiety, the agitation, the sinking of the heart, the fear of failure, and, worse still, of the exhibition of incompetency, that preceded, nor the blind groping with the blades and the vain attempt to remember and apply the precepts of the books, that attended my early trials with this instrument.

Such repelling and unmanning terrors, and such fruitless efforts, be it observed, are doubly unfortunate, when, as in this operation, the crisis to be met is one that occurs to every practitioner, one that he must oftener meet alone, and one whose peculiar urgency is greatly augmented by the impatience, the

anxiety and the expectation of friends, and by the suffering and often the danger of the patient herself.

In my own case I cannot be wrong in attributing these early fears and perplexities to faulty instruction. My purpose in this article is to show that these terrors do not legitimately arise from the character of the operation itself, nor are these difficulties inherent in it; but that they result from the erroneous way in which the subject is taught in books and in schools. I undertake to show that, in many of its most essential particulars, that teaching is defective and erroneous in substance, and in manner unnecessarily complex and obscure. A total want of uniformity in the rules laid down by different authors adds to the perplexity of the pupil.

In place of these obscure, complex, impracticable and discordant instructions, I undertake to give a set of rules that shall be simple and intelligible, that shall be applicable to all cases, and that shall thus rob the operation of its terrors, and make its practice, for obstetricians of ordinary intelligence and dexterity, easy and certain.

The points that I propose to touch upon are:

I. The danger that attends the use of the forceps.
II. The exigencies that call for the forceps.
III. The best kind of forceps.
IV. The position of the patient.
V. The law of application.
VI. The manner of introduction.
VII. Locking.
VIII. Slipping.
IX. Compression of the head.
X. Management in extraction.

On all of these points I shall venture to differ more or less widely from the received authorities, and I shall discuss only the particular matters in regard to which I thus differ from them.

I. Dangerousness of the Forceps.—Is the delivery of a parturient woman by the forceps attended with any considerable degree of danger to her? The general tone of our teachers and text books replies in the affirmative to this question. I shall never forget the earnestness with which that excellent and conscientious instructor, the late Prof. C. R. Gilman, used to impress upon the minds of his pupils the terrible dangers that attend the use of all midwifery instruments. It was his custom, in closing his lecture, to fling them from him with a somewhat theatrical show of terror and aversion, and to warn us in the most impressive manner of the fearful responsibility that accompanies their use. An innocent

pupil was almost led to think that, in certain bad cases of labor, it was pretty much an even thing between letting the woman die a natural death, and twisting her womb off with the forceps, or letting her bowels out with the perforator.

On looking over authors, I find that these terrors are by no means peculiar to Professor Gilman. Cazeaux warns us of "lesions of the cervix and perforations of the vagina." He says: "There can be no doubt that the use of the forceps increases the danger of delivery." Churchill speaks of "laceration of the vaginal parietes, bruising the os-uteri," etc., etc. Blundell says: "In violent hands the long forceps is a tremendous instrument. Force kills the child, bruises the soft parts, occasions mortification, breaks open the neck of the bladder, crushes the nerves," etc., etc. So much is he afraid of wounding the soft parts, that he advises us always to count the pulse between the pains, to see whether we are killing our patient!

It was reserved for Dr. G. S. Bedford to reach the acme of terrorism, and to stir the imagination of his hearers and his readers with the most fearful pictures of ruin wrought by the forceps.

"The use of the forceps," he says, "is too often a scene of harrowing agony to the patient." He speaks of "fractured pelvic bones" and "disparted symphyses;" of "vesico-vaginal fistula," of "occlusion of the vaginal walls and the meatus urinarius," etc., etc., as common results after forceps delivery.

He pretends to support these statements by cases; but the reader who carefully examines these cases will see that they really give his representations no countenance. In the case, for example, which he gives on page 570, the history that he narrates in no way warrants him in attributing the calamitous result to the use of the forceps. It was probably due to the length—three days—and the severity of the labor, and would in all likelihood have been different if the forceps had been used in time. It was probably "masterly inactivity," and not the forceps, that did the damage. I believe that similar criticism will apply to almost all of the cases that are given in books to illustrate the dangers of the forceps; the premises will not warrant the conclusion, and, indeed, the history is generally too imperfect to warrant any conclusion. To me, with some observation and experience of my own, these terrible representations seem ridiculous and absurd. I affirm *that the forceps is not in any material degree a dangerous instrument* to the mother. In my own practice and observation, I have but once seen death follow a delivery by the forceps. In that case the fatal flooding was clearly due to exhaustion and uterine atonicity from too long delay of delivery; the application of the forceps

and the extraction of the child was quick, easy and painless. I have seen some discreditable fooling, and a little cruelty, with the forceps, but I have never seen a case in which there was reason to attribute any injury of the parturient to its employment. When skillfully used it is not only harmless but painless. I never attend a patient whom I have delivered with this instrument without her asking for it again. The forceps is, indeed, a peculiarly innocent instrument. With its curved form and rounded edges it is almost incapable of mischief. It cannot cut, or puncture, or tear, or scrape. Neither can it bruise the soft parts, without the most stupid and reckless violence. As for its being pushed through the vaginal or uterine walls, it would be difficult or impossible to do it intentionally. Injury to the bony parts of the pelvis is equally out of the question.

The proportion of women that die after the use of the forceps is no evidence of its dangerousness; as well might we in the same way argue that bleeding or opium, or any other treatment, is dangerous in puerperal convulsions. Statistics are, therefore, of no value. It is obviously impossible to distinguish between the deaths that are caused by the forceps—if it is claimed that any one is so caused—and those that result from the conditions that called for them, or from other causes. The forceps is seldom resorted to, save in protracted and difficult cases, and in these a considerable mortality is to be expected from causes entirely independent of the instrument.

I will not deny that if the operator, following the instructions of the books, endeavors, obstinately and uncompromisingly, to introduce the long, double-curved forceps into the upper part of the pelvis, with its pelvic curve twisted from accordance with the anatomy of the passage thereto, he may injuriously bruise the maternal parts; nor will I deny that a similar or even greater evil may result if he imitate Dr. Elliott, (viz., his Obstetrical Clinique, passim), and wantonly and absurdly use such force as to "break" or "bend" a blade, "endanger the integrity of his instrument," "lay out his whole strength with braced feet," etc., etc. What I do claim is, that if he use ordinary anatomical knowledge, mechanical skill and common sense, the obstetrician cannot harm his patient with the forceps, and therefore the conscientious practitioner need never fear to try them. I think it would be difficult to find a single case in the books that, properly interpreted, even tends to prove the contrary. I have not found one. I am substantially supported in my opinion of the innocence of the forceps by Professor Simpson, as the reader will see by reference to his obstetrical works.

I shall not claim that this instrument is ordinarily *as harmless to the child as it is to the mother*. The features of the infant

are in practice often temporarily, and sometimes permanently, disfigured by it, while the bones, and even the viscera of the head, have been sometimes fatally crushed. Dr. Elliott, in his "Obstetrical Cases," furnishes several instances of this. I do, however, claim that these injuries are entirely unnecessary, and proceed solely from want of skill in the operator. It is only when the grasp that the forceps gives is used for the purpose of compression, or to avoid slipping, that the instrument, when properly applied, can do any damage to the child's head. I expect hereafter to show that compression is never necessary or useful, and that, when properly applied, the forceps cannot slip.

The fear that seems to possess many obstetrical authors, of punching off the ears, or peeling the cranium of its scalp in passing the blades, is entirely absurd. Such an accident is substantially impossible. The beginner really need not have the bother of taking care of the child's ears added to his other troubles.

II. What are the Exigencies that call for the Forceps?—This question, in my opinion, admits of a simple and comprehensive answer. The occasion, the justification and the obligation, of using this instrument, are co-extensive and identical. Whenever, in a head presentation, with probable room for the head to traverse the pelvis, and with the os fully dilated or partly dilated and easily dilatable, the longer continuance of unaided labor involves danger either to the mother or to the child, or even a long duration of suffering to the mother, the forceps should be used. I go further; I hold that the forceps is justifiable sometimes in order to cut short the unnecessary protraction of those anxieties of the patient and her friends, that attend uncompleted labor, and even to save the time of the practitioner himself. I am well aware that in this opinion I widely depart from the maxim that authority sustains. Churchill, though reckoned an advocate and defender of the forceps, lays down the rule, in italics, for emphasis, that "they are to be applied in no case, till we are perfectly satisfied that the obstacle cannot be overcome by the natural powers with safety to the mother and the child." It is such a rule as this, causing perilous delay, that makes this instrument, in crude statistical tables, seem the means of death. I repudiate this rule. It is a rule that may be fitly followed by those who believe the operation to be difficult or dangerous, but it is not one for me, who think I find it as easy as the passing of a catheter, and as innocent as giving an enema.

As it is not my purpose to write a systematic treatise on the forceps, but only to touch upon those matters where I think the existing practice is erroneous, I shall not enumerate and discuss in detail the many items that are comprehended in the rule that I

have laid down, but shall content myself with some observations on certain supposed limitations of it that are to be found in the text books. Those limitations that hang on the supposed dangerousness of the operation I have already sufficiently discussed.

It is said that great violence of the pains contra-indicate the forceps, on the ground that a reinforcement of the expulsive power would be dangerous. This doctrine is entirely erroneous. The use of the forceps in such cases, in addition to its ordinary advantages, saves the womb from some part of that perilous violence of muscular action that, beside minor evils, sometimes threatens even its own integrity.

Neither is extreme resistance or rigidity of the soft parts a contra-indication. It is even an indication. If rigid perineal tissues be the obstacle, the danger of their laceration will be lessened by the forceps. The wedge-like form of the proximal end of the locked blades is an important aid in dilatation. It prepares the way. Meantime it diffuses the bearing of the uterine force along the longitude of the vagina, lessening its intensity at any point. On the other hand, so far as the resistance is due to the action of the perineal muscles, greater mechanical force in overcoming it is no way objectionable; and it can certainly be more cheaply furnished by the arm of the obstetrician than by the uterus of the mother.

Moreover, the experienced practitioner will remember that a majority of the cases of laceration of the perineum occur when, after long delay at that point, and many ineffectual pains, the uterus, as if vexed by the futility of its efforts, with one tremendous throe suddenly bursts through the obstacle. Reflex power, when repeatedly foiled, does thus accumulate. The forceps, by securing the steady progress of the head in some degree, obviates the danger.

Besides this, it is to be remembered that laceration of the perineum seldom or never occurs, save when there is a congenital deficiency of the elastic tissues of the vulva. This imperfect development may be hardly appreciable, or it may approach atresia. If it exist in even a slight degree, laceration of the parts is perhaps inevitable. Whatever the degree of danger may be, it will not be increased by the forceps unless the final delivery be wantonly and violently precipitated. The additional bulk made by the blades is next to nothing, and is more than balanced by the slight elongation of the head that almost necessarily attends their use. Meantime their wedge-like shape, beginning earlier the dilatation of the external parts, necessarily makes it more gradual and therefore safer.

Not a few authors declare that the use of the forceps should not be attempted when the head is above the superior strait. I can conceive of no good reason for this limitation. The operation

under these circumstances is somewhat more difficult to the inexpert, and is sometimes impossible, but it is entirely free from the objection of peril. When the waters have escaped, tonic uterine contraction generally holds the head firmly against the inlet of the pelvis, with a larger or smaller segment of it engaged therein. In this condition a tolerably expert operator will have no great difficulty in grasping it with his instrument, and, if it be not detained by insuperable mechanical obstacles, delivery can be readily effected. On the other hand, when, from deficient tonicity of the uterine walls, or from the presence of a considerable quantity of amniotic fluid, or from both of these causes combined, the head is freely movable or floats above the pelvic brim, the attempt to apply the forceps will be of doubtful success. Turning is then the surer resource. This exigency may co-exist with hemorrhage, convulsions or other accidents calling for speedy delivery; but it can hardly obtain in any of the forms of dystocia proper, save in that in which there is so considerable narrowing of the pelvic brim as to make impossible any other means of delivery than embryotomy. The principal source, in my opinion, of the objection that many authors entertain to the use of the forceps when the head is in high situations, is in their utterly erroneous mode of applying the instrument. It is this that makes very many respectable authors oppose its use even when the head is already engaged in the superior strait, and needs but the touch of skill to cause it to finish its course.

III. What kind of Forceps should be used?—To the possessor of the long, double-curved forceps, the short forceps is utterly useless. Everything that can be done with the latter can be done with equal facility, safety and painlessness with the former. The obstetrician who sports both kinds, must be of a piece with the well-known gentleman who directed his carpenter to make in his garret door a big hole for the old cat and a little one for the kittens!

Equally unnecessary is it, in my opinion, to have several different forms of the long forceps. The editor of Prof. Simpson's Obstetrical Works reports him as saying, that "the more frequently he applied the forceps the more firmly he became convinced that one pair, of proper form, would answer for all forceps cases." (Vol. I, p. 442.) I entirely coincide in this opinion, and in the last fifteen years of tolerably extensive obstetrical experience have had occasion to touch but one pair. I am, accordingly, quite unable to appreciate the practice, in this particular, of Prof. Elliott, who, in his "Obstetrical Cases," reports himself as often trying several pairs in succession in the same labor. He seems to carry about with him as many tools as a carpenter or a burglar. This, of course, is not done for effect. He may safely trust more to his own skill and less to the skill of his instrument maker.

The exact shape of the blades and the mode of locking have been the subject of a great deal of attention, and of many modifications and supposed improvements. One would imagine, from the amount of ingenuity that has been expended on the subject, that accouchers were in pursuit of a key to open some intricate lock, and not of a pair of slender artificial hands to glide along a passage of well-known shape to a position that our own hands cannot reach, and to clasp there simply an ovoid body. All of the modes of locking are good enough; and I am inclined to think that the slight differences in the shapes of the modern instruments are not very material. The instrument that I use (and of course think the best that was ever made) is called in Paris "Dubois" forceps, and was made by Charrierre of that city. It is considerably longer, and somewhat more pronounced in its pelvic curve than Simpson's or Elliott's, and, in my opinion, is therefore better. I have not found it necessary to add to it the sliding guard of the latter inventor.

IV. The Position of the Patient.—The expert operator can apply the forceps equally well with the parturient on her side and on her back. The former position has this advantage, that, since women in this country are generally confined on the side, the arrangements for the operation in that position are less disturbing than in the other, and therefore less menacing to the imagination of the patient. This position also gives better access to the field of operation. I shall however recommend the other posture; for the reason that it better enables the practitioner to see, *with the mind's eye*, the anatomy, the mechanism, and the physics of the matter in hand. It is the position in which bodies are dissected, and in which we are in other ways most familiar with the female pelvis. In addition, this posture is symmetrical with the posture of the operator while operating—a fact which greatly facilitates both his conceptions and manipulations.

V. The Principle of the Application.—The grand question in the use of the obstetrical forceps, is, *whether the law of their application should have relation to the particular presentation of the head, or to the curve of the pelvic axis; to the anatomy of the child, or to the anatomy of the mother.* Shall we have regard to the theater, peculiar and nearly invariable in form, and definitely limited in extent, in which our operation is to be conducted, or to the posture in which the object to be seized may chance to lie? It is the former of these alternatives that the American, English and French authors that happen to be within my reach, unanimously adopt. Most of them say that the blades of the forceps should be applied "to the sides of the child's head," "parallel with the parietal bones." Even those who admit a less exclusive rule, substantially coincide with Prof. Bedford,

who declares: "It is the position of the head that should determine the position of the blades." (Principles and Practice of Obstetrics, p. 558.) The same doctrine is taught by all the public lecturers on obstetrics that I have had the opportunity of hearing. In short, this is the principle that the American student finds everywhere laid down. It is not necessary to multiply quotations.

Prof. Simpson, it is true, appears to be partly aware of the absurdity of this rule. He says (Obstetrical Works, vol. I, p. 440), that "the application of the long forceps to the lateral or aural surfaces of the child's head at the upper strait, as described by Burns, Dewees, etc., and pictured by Churchill, is impossible in the very cases in which they are generally required;" for these reasons, among others, that "their pressure would greatly endanger the urethra and bladder in front," and "that they could no thus be placed in the axis of the brim, in consequence of the pressure of the perineum upon the instrument below." He makes like objections to the mode of application taught by Deleuyre, Davis and others, and illustrated in Ramsbotham. But when Dr. Simpson comes to lay down a method of his own, he falls into the same fundamental error as those whom he condemns. He directs the blades to be applied upon a certain diameter of the head. In other words, he teaches us to be governed by the *presentation*, and not by the maternal anatomy.

In my opinion this rule is entirely erroneous. I believe that the blades should simply follow the course of the utero-vaginal canal, and, when applied, should, in all cases, be in accord with the curve of the pelvic axis, regardless of the presentation. I believe that the presentation is not of the slightest consequence, and cannot be advantageously, or, in many cases, even innocently regarded. Wherever the sides of the head may be, the blades should be applied to the sides of the pelvis. I should perhaps hesitate in thus rejecting the traditional and uniform instructions of our authorities, did I not find it casually mentioned in Cazeaux, p. 802, that the method that I recommend is the practice of at least a part of the profession in Germany.

If the received doctrine on this subject be an error, it is a very grave error, and leads to very grave evils. The first of these is that it imposes upon the operator the necessity, as a preliminary step, of ascertaining the presentation. Even to the experienced practitioner this is not always easy; to the neophyte it is always difficult and uncertain. Knowing it to be so, he is never sure that he is handling his blades rightly. This doubt is a constant source of embarrassment and hesitation, and often makes him withdraw and introduce a blade again and again.

A far greater evil is that this doctrine necessarily makes the rules to be followed exceedingly complex: for the modes of introducing and applying the forceps must be as various as the

presentations. Accordingly we find in all our authors a great variety of rules for the different presentations. Cazeaux gives special directions for each of eight vertex presentations when the head is at the inferior strait. Above that point, vertex presenting, he makes still other varieties of procedure. In face presentations he gives us similar changes in the modes of application.

Dr. G. S. Bedford has four variations in the application of the forceps at the upper, and four at the lower, strait. After these comes a miscellany of some half a dozen other modifications.

Dewees says, "the forceps should be applied to the sides of the head." He has four variations in this operation for the seven primary presentations that he counts, and still others for the more rare and difficult presentations.

Meigs lays down the same rule, "that the blades are to be applied to the sides of the head, and makes as many variations in the operation, some ten or a dozen, as consistency seems to him to require. His whole chapter on this subject is worth reading as an example of "confusion worse confounded."

Churchill says, that "at the brim of the pelvis the forceps may be applied in the transverse, the oblique, or the antero-posterior diameter, etc., etc., according to the presentations."

These references to popular authors, selected at random, are sufficient to show the extreme complexity of the rules for delivery by the forceps—as they are presented to learners at the present day.

It will be worth while for those who are curious on the subject to follow farther this comparison of obstetrical authorities. They will not fail to notice that, true to the native inconsistencies of error, the directions given in the different text books follow no common law or principle, but are various and conflicting in the utmost degree. The number of varieties in the mode of application is from three to more than a dozen. Some authors give different directions according as the head is at the upper or the lower strait, or between these points; others make no distinctions. Some make a difference in their instructions, according as the long or short forceps is to be used, others treat of both in the same words. So greatly unlike are their descriptions of the proper way of introducing and managing the blades, of the direction of the handles, etc., etc., in any particular presentation, that a reader would not suppose they were treating of the same case, or even the same subject.

What is the reason of these discrepancies and this confusion? Truth is always simple. The handling by learned and experienced men of a subject so long familiar to the profession as this has been, ought to exhibit the simplicity, uniformity and exactness of scientific truth. It exhibits in our leading authors none of these qualities. The cause is, that the principle with which they start,

and on which their reasoning and descriptions are based, is essentially and totally erroneous. It is *not* the presentation that should govern the mode of application. However the head may present, the law that should govern the position of the blades is one and the same.

That law is, that the pelvic curve of the forceps shall follow and coincide with the utero-vaginal curve.

For what purpose, let me ask, is the pelvic curve given to the long forceps, unless it is to accommodate the shape of the instrument to the anatomy of the mother? It is only a single line of direction that this curve can fit, that is, the line of the pelvic axis, and it will bring the blades symmetrically against the sides of the pelvis, with the convexity of their pelvic curves following the bend of the sacrum. The curve of the sacrum and of the vagina, and the resistance of the floor of the pelvis—elements so powerful that in every labor we see them change the direction of the head by more than a quadrant of a circle—must be fully regarded, not only in the form of our instrument, but also in the position in which it may be placed in the utero-vaginal canal. Obvious as this would seem to be, I look in vain among the authors within my reach for the due acknowledgment of its importance.

I assert that till the head is actually at the outlet of the pelvis it is substantially impossible to apply the forceps in any other than the manner I have indicated. A slight deviation of the instrument toward an oblique diameter I admit to be possible, but its own shape and the laws of mechanics confine that deviation within narrow limits. How can you place the blades along the parietal bones when the plane of those bones makes an angle with that part of the pelvic axis in which the head is situated? Or how can you, without undue violence, lay them there when their pelvic curve must widely divert from and antagonize the curve of the maternal passage? The curve of the vagina still exists even when that canal is dilated to permit the passage of the head: can it be disregarded in the mechanics of forceps delivery? If we compare the distance, following the sacral curve, between the posterior commissure of the vulva and the posterior edge of the pelvic brim, with its anterior counterpart, it will be obvious that the blades, one following one line and the other the other line, cannot be brought squarely and symmetrically to embrace the head, without forcing their hands violently back to the very coccyx. Nor, when the head is at the superior strait, can it be done even thus. Nevertheless these are the virtual impossibilities that authors and lecturers, in the most matter-of-course way, call upon us to perform. They hardly ever suggest a difficulty or a doubt. Their language would make one think that the forceps can be played about in the female pelvis, with its pelvic curve bulging this way or that, as freely and easily as in an india rubber bag or in a barrel.

To cap the climax of absurdity, our professors illustrate their instructions on that most useless and preposterous of all human contrivances, called by Dr. Meigs, with unconscious appropriateness, "the Phantom." I well remember, as a pupil, spending hours over that effigy, learning, as I innocently supposed, to apply the forceps to the sides of the head when it presented in this, that and the other position. Nothing could be less like nature, and nothing, therefore, could be less instructive. It was like breakfasting on the morning fog. You might as well practice passing a catheter on the town pump.

I admit that when the head is at the pelvic outlet, the forceps may be applied to it in any of the diameters of that outlet. But even here the blades are best applied to the sides of the pelvis; for only thus will they be in symmetrical and easy relation to the maternal parts. The application of them in an antero-posterior position, or in a position approaching that, involves straining back the perineum in a painful and injurious manner, and threatens harm to the soft parts that underlie the pubis. For these evils this mode of application has no compensating advantages.

I shall be asked to reconcile the position I take in this matter with what authors represent themselves as doing. I prefer not to undertake to do this. When a man describes the application of the blades of the forceps antero-posteriorly at the upper strait, he describes what is impossible. Let me add that many times operators deceive themselves with regard to the direction in which the blades are passed; and many times authors, in their descriptions as well as in their maxims, blindly follow the beaten path.

If I am deemed guilty of unwarrantable audacity in speaking thus of our obstetrical authorities, I shall shelter myself behind the quotation that I have already made from Professor Simpson, If Burns and Dewees and Churchill describe impossible processes, and even sketch them for the engraver, as he says they do, why may not the most modern book-makers err in the same way? I am of the opinion that they do so err. I think, moreover, that it is entirely proper for any practitioner to repudiate authorities that are so utterly inharmonious as those that now bear sway in this matter of the application of the forceps.

Professor Elliott, though he follows the rest in instructing us to obey the presentation and apply the blades along the sides of the head, betrays the idleness of the rule when he says, page 300: "In difficult applications they will generally be applied over one of the oblique diameters of the fœtal head." Inspection of the head, after delivery, will show that they almost invariably lie upon the head in this manner, and almost never along the parietal bones.

An inspection of the cuts for illustrating forceps delivery that are to be found in treatises on midwifery, will show that the

representation of impossibilities with which Professor Simpson charges Churchill is sometimes avoided by making the picture entirely inconsistent with the text. An application in an oblique diameter of the pelvis is described in the text, while the illustration of the forceps in position represents the instrument laterally applied, the locked handles being unmistakably in the plane of the transverse diameter of the pelvis, and resting squarely against the perineum. The fact is that a properly constructed blade of the long forceps, when once engaged between the head of the child and the wall of the vagina and pushed home along that canal, has, from its very shape, so strong a tendency to settle into the position to which alone its double curve is adapted, that only the perverse misdirection of ill-taught and violent hands can make it go astray. This is the reason why the young accoucheur, after repeated but futile efforts, has often found his instrument strangely and unexpectedly slip into its place just when he was despairing of success and had almost ceased to try.

It is easy, too, for older operators, when the greater part of the blade is buried out of sight in the pelvis, to be deceived with regard to the direction it is taking, double curved as it is, and to erroneously believe that its whole course is on the line in which it began.

There are two ideas whose influence seems to have kept the minds of obstetric teachers fixed on always aiming to apply the blades of the forceps to the sides of the child's head. The one has relation to the safety of the child, the other to facilitating delivery by getting hold of the head endwise. In regard to the first, it is true that the blades so applied will "fit" somewhat better than when applied in any other diameter, but the head is so near a globe in its form that the difference in the fit or in the security of the hold is not material. The immunity of the child, in bone or feature or viscus, is never endangered by the proper use of the forceps. The obstetrician whose instrument disfigures the new-comer is a bungler whose only excuse is that he was taught in a bad school. Forcing the end or the edge of the blade into the child's tender flesh is a barbarous result of that stupid idea in obedience to which we are told to *compress* the head in order to diminish its size or to prevent the instrument from slipping from its hold.

I shall, of course, admit that the head will pass easiest endwise; but I deny that the forceps can always be applied parallel with the long diameter of the head and along the parietal bones, and thus insure that facility. Whatever can be done by this instrument toward bringing the head into the most favorable position for delivery or toward directing its progress, will be best done by applying the blades symmetrically along the sides of the pelvis, fixing the head between them as in a frame, and, having it thus

under control, giving to it whatever change of position or direction may be advantageous and possible. It will certainly be much easier to give your locked instrument a departure from mesial and symmetrical relation with the pelvis than to place the blades separately in that departure. It is safer, too; for the locked blade can move only with its fellow and with the enclosed head. Even in the most untaught or incautious hands its end or its edge can now do little harm. The locked forceps, applied in symmetry with the pelvis, may be regarded as an absolutely innocent instrument. With the enclosed head it may glide, or turn, or roll in the pelvis to some small extent, but it cannot jam, or cut, or tear, or bruise the maternal parts.

If it be true, as I have indeavored to show, that the obscure, complex, contradictory and multiform rules of the books are based on an erroneous principle, their abrogation is of the highest importance. Even if they were sound, their multiplicity and variety would make it impossible to remember them, while their obscurity would often make it difficult to understand them. When to this we add that their correct application presupposes that the practitioner can make himself sure of the presentation, which for most of us is often difficult, and for many of us sometimes impossible, it needs no argument to show that under their guidance the young obstetrician is indeed in pitiful straits.

Whose heart does not sink at the remembrance of his own first forceps case? Let the scene come back. His mind already possessed by the bugbear of the danger and difficulty of the operation, the novice first gropes and studies and sweats over the diagnosis of the presentation. Only partly sure of this, he next endeavors to find in his memory the special rule of the case. Is it strange, that, with such a mixed sea of authorities on this point as the books present, the endeavor is often vain? Nevertheless, he must go on. This is no time for delay or hesitation. He enters a blade. Practical difficulties now meet him. The blade will not go to its place. He is balked. Fears possess him. He doubts the correctness of his diagnosis, he doubts his memory, he doubts his skill. Confiding youth! it never occurs to him to doubt the soundness of his teachers. He begins to fear that he shall harm his patient; lacerations, ruptures—God knows what! —rise before his mind. He withdraws his instrument. He tries again, and perhaps, by chance, succeeds; or, failing a second and a third time, he sends for counsel, to find it, perhaps, as helpless as himself; or, no professional aid being within reach, he makes shielding excuses to the friends, of "contracted pelvis," or "slipping instruments," or "abnormal bulk of head," and resorts at last, more to be pitied than blamed, to the deadly perforator.

Is this not a true picture? And must not that young man be sustained by an exceptionally courageous heart who ventures to

take his forceps in hand, save on the pressure of dire necessity, or of that public opinion of the lying-in-room which, direr still, calls upon him to show himself equal to every emergency, or to prepare to meet the sidelong glance of distrust, and even the pointing finger of contempt?

VI. The Manner of Introduction.—The principle of applying the forceps, according to the presentation, being thus proved to be illusory and impracticable, it remains to substitute for it a rule to which the obstetrician may safely trust in this important operation. Such a rule, simple to understand and easy to follow, is, in my opinion, not difficult to find. It is, that, in conducting the blades along the pelvic passage, and in grasping with them the head of the fœtus, we shall disregard entirely the presentation, and have regard only to the curve of the vagina and the contour of the pelvic cavity. The mind's eye must simply see a rounded body lying in the utero-vaginal canal, while the hand, obeying the anatomy of that canal, directs each blade of the forceps so as to pass around and embrace it.

Let this be established as the rule, and the operation becomes free from complications. It is no longer necessary to remember the endless variety of rules with which authors are filled. One simple law is in all cases to be followed, but two anatomical elements are to be held in the mind, and a uniform manipulation is to be executed.

It is, moreover, no longer necessary, as a preliminary, to ascertain the presentation. If there are those who assert that this is no bother, and who set me down as wanting the *tactus eruditus*, I shall simply ask them what they will do with the table given in Simpson's Obstetrical Works, ser. I, p. 414, according to which the ratio of occipito-posterior presentations to other presentations found by different experts, varies from 1 in 1336 to 1 in 3 or 4? or with the table given by the same author on the next page? I dare to assert, that if it be necessary to know the presentation before applying the forceps, the old rule of waiting till you can "feel the ears," is still a sound one.

I am well satisfied that the operation is, in fact, usually performed, sometimes intentionally, and sometimes unintentionally, on the principle that I have laid down above, and I confidently believe that my position will not need to be supported by authorities in the judgment of men of experience. But it is still necessary to introduce the doctrine into the books, and lay it before the generations of learners. It is for those that have the art of the forceps still to learn that I write.

If it be true, as indicated by Cazeaux, that this simple and easy rule of practice is somewhat generally followed in Germany, the fact will explain what we find in the statistics collected by Churchill. (Midwifery, p. 339, *et seq.*) It seems that the German practitioners

there mentioned resort to the forceps nearly three times as often as do the English. It explains, too, why, as we are told by the same author, the Germans report a very small proportion of crotchet cases, and a very small fatality among children after the forceps.

Let us now approach the bedside of the patient, and proceed to perform what has properly been called the "obstetric miracle."

The first question that arises is: Which blade shall first be introduced? In regard to this little matter, singular obscurity and confusion will be found in authors. The individual blades are variously and loosely designated as the "upper and lower," "right and left," "male and female," "anterior and posterior," etc., and I nowhere find a uniform law of precedence clearly laid down. Such a law is, nevertheless, easily pointed out. That blade is to be entered first, which, when both are introduced and crossed, will be next the posterior commissure of the vulva. A moment's inspection of the lock will show which this is. It may most properly be called the posterior blade, and as the forceps are commonly constructed, is that one that must find its place in the left half of the pelvis.

Now, while the operator, with one or two fingers of his right hand supine, touches the scalp well back toward the sacrum, let him take this blade near its centre of gravity, with the fingers of the left, and holding it nearly perpendicularly, but a little inclined to his own left, slide it into the vagina along the palmar surface of his hand, till its extremity is engaged between the head and the maternal parts. From this point it is not the touch of the operator, but the imagination, the mind's eye, informed by anatomical knowledge, that must guide his motions. While he gently pushes along the blade, he must remember both the oval of the head and the bend of the vagina, and both the cranial and the pelvic curves of his instrument. He must remember, that while the point of his blade follows the utero-vaginal canal, it must so follow it as to bring its flat concave, not behind, but alongside the head, and its concave edge under the os pubis. In order to accomplish this double indication, the handle, as the point of the blade advances, must describe an intermediary between two curves. While it comes backward toward the operator and downward, it must also go outward toward his left and downward, and must describe in each of the two curves near a quarter of a circle. In other words, while the blade, in respect of its cranial curve, obeys the contour of the head, in respect of its pelvic curve it seeks the bend of the pelvic passage, and in order to adapt itself simultaneously to both, it must follow a spiral that contains them both.

In order that the young obstetrician may study the movement of his blade in detail and guide it most intelligently, it may be well for him, holding it as above described, at first to follow with its extremity simply the curve of the child's head, bringing the handle

backward and downward, but not outward. As the blade advances deep into the pelvis, its convex edge will come to press against the right side of that cavity, its pelvic curve antagonizing in part the utero-vaginal curve, and the strain will resist its further progress. Now let him add to this movement obedience to the pelvic curve, by carrying the handle also outward and downward, and this convex edge will be turned gradually toward the sacrum, with whose curve its own contour is in harmony, and the before reluctant blade will glide along as if by instinct. Thus enlightened by watching his own progress and seeing the reason of it, the dullest disciple will hardly find difficulty in accomplishing the subsequent steps of the introduction. Whenever the onward progress of the blade is resisted, he will almost invariably find it due to an excess of one of the two above-described elements of the combined or spiral movement; and gentle trial of them separately will show him in which direction easy progress lies.

The double or spiral movement described is to be carried on till the handle is brought into the mesial plane of the body and firmly back against the perineum. The novice will be surprised at the length of the road he has to travel. Let there be no fear of passing the blade too far. There is no danger of doing this. After surmounting the convexity of the head, the end of the blade will necessarily approach the mesial line, and its impingement upon the body of the child will arrest its progress at the proper stage. From the opposite error great evils arise. From not carrying in the blades far enough it comes that they refuse to lock, and that their ends may be made to cut the scalp or gouge out the eyes, or may slip from their hold. The second or anterior blade is to be passed to its place in precisely the same way, *mutatis mutandis*, as the posterior blade.

The introduction of the hand into the vagina, as recommended by some authors (Bedford, for example), for the purpose of guiding the blade of the forceps, is an entirely superfluous piece of barbarity. The obstacle that often resists the onward motion of the blade is not a fold or cul-de-sac of the soft parts, whether of the mother or of the child. It is some false direction of the blade; and it usually and naturally results from the attempt of the practitioner to follow the erroneous rules laid down in the books. In my opinion there is no danger of punching a hole through the utero-vaginal cul-de-sac. When the edge of the os is beyond the reach of the finger, it has so far disappeared into the adjacent walls, that the extremity of the blade is in little or no danger of catching outside of it; and whatever danger there may be, is easily obviated by hugging a little the head of the child. The fear of punching off the ears of the child or of peeling its head, which are expressed by some authors, are not deserving of attention.

Most authors direct the first blade, when introduced, to be given

to an assistant to be held in place. This is generally unnecessary. When the blade is pushed to its proper place and its handle carried well back, it will stay there.

VII. Locking—Probably there is not one of my readers, that, in his first essays with the forceps, did not have great trouble in making the blades lock. Even with experienced accoucheurs this is one of the most common and embarrassing of the difficulties that are met with. What solution of it is furnished by authors? None, or worse than none. The best they have to suggest is, to withdraw one blade or both, and try again. This is a sort of "scribe" rule, "cut and try" or "rule of thumb," that certainly does no credit to a learned and scientific profession.

Cazeaux recommends, in addition, that when one or both blades "turn outward," "the handles shall be grasped by the whole hand." What this means, unless it be an attempt to *force* them into place, it is not easy to see. If it means that, it is a vile rule. Dr. Bedford lucidly informs us, in page 588, that when the blades have embraced the head, the accoucheur will be able, "by judicious manipulation," to lock the forceps! This is highly instructive! What is "judicious manipulation"? The whole operation of the forceps is done by "judicious manipulation." Professor Meigs, page 558, speaks of "pushing" the blade this way and that, in order to bring it into a position to lock. These are fair samples of the guidance that the practitioner will find in the books in this important emergency. It is in default of better instruction that in our early trials we introduce and withdraw the instrument again and again, and, it may be, utterly fail at last. I cannot think that men who can furnish no better rules than these, fully understand the forceps. I believe that two simple precepts may be given that will almost invariably secure quick and easy success in locking the blades. These are: to push the blades far enough along, and to carry the handles far enough back against the perineum. The first step places the blades fairly upon the head, the second carries them back into the axis of that part of the utero-vaginal curve in which the head is situated; and, the blades being now symmetrical to each other, the handles must necessarily cross each other in the same plane, and will, therefore, lock. All ordinary cases of failure to lock, provided that the blades are laid anywhere in the neighborhood of their proper place, are due to deficiency in one of these particulars. These two steps of final adjustment, it will be observed, are but the continuation and completion of the process of applying the blades which I have already described; but their exactitude may properly be left till both blades are introduced and crossed, when if they do not lock, the fault almost always will be found to be in the incompleteness of one or both of these steps. In disproportionately roomy pelves, the course and position of the instrument not being normally controlled by the shape of that

cavity and of the head, one or both of the blades will sometimes need to be slided towards the pubis. A deformed pelvis may make another exception to the sufficiency of the rules above given.

VIII. ARE THE FORCEPS LIABLE TO SLIP?—This is an important practical question. The reader will observe that in a considerable number of the cases in Dr. Elliott's "Obstetrical Cliniques" the forceps "slipped." Professor Meigs is so much afraid of this accident that he directs us to keep the finger against the head of the child in order to detect its incipience. In short, nearly all of our standard authors warn us against this danger. My forceps never slip, and in the face of these authorities I unhesitatingly assert, that in all ordinary proportions of the head and pelvis, with decent instruments correctly applied, the danger of slipping is wholly imaginary. Properly embraced between the blades, the head no way tends to slip from between the edges, either forward or backward; nor is there room for it to do so. Equally impossible is it for their ends to override the bulge of the cranium and let them come back to us empty. They must do this simultaneously if at all, and this will involve such wider separation of their bellies as the limits of the pelvic cavity do not admit. They certainly cannot slip over the head and come away without occupying more room in their void grasp than they would in bringing the head along with them.

When the forceps slip it is because the blades are not passed far enough to truly embrace the head. Their ends rest against it on or near its bulge, instead of reaching nearly or quite to the cervical region. This is the explanation of all the cases of slipping that I have ever seen, or can imagine. The instrument slips off because it has never been on. The question is important, not because the slipping of the blades can do any material harm, but because the apprehension of it is sure to lead to the wicked practice of violently

IX. COMPRESSING THE HEAD.—So far as the danger of slipping is concerned, I think I have shown that this is entirely unnecessary. The degree of compressing force that is necessarily used in grasping the instrument is all that is required, in any permissible exercise of extractive power, to make sure the hold of the forceps when properly applied, even in a disproportionately roomy pelvis.

But our authorities, moreover, with a good degree of unanimity, instruct us to compress the fœtal head in order to promote its elongation, and thereby facilitate delivery. Indeed, according to Prof. G. S. Bedford (Principles and Practice of Obstetrics, p. 575), "accoucheurs are divided as to whether the forceps acts principally as a compressor or an extractor." I can but regard this doctrine as erroneous and singularly unreasonable. The compression of an

elastic body, while it diminishes one diameter of it, necessarily tends to increase all the diameters that are at right angles to the compressing force. Now it is obvious that there will seldom or never be need of reducing that diameter of the head which the blades of the forceps subtend, and which alone they can directly act upon. The contained must be less than the container, and the very fact that the blades have been passed around the head at the point where it has been stopped, is almost conclusive proof that in that diameter there is room enough. The obstacle, then, must be in another diameter of the head, and compression tending to increase that diameter, must tend to increase the obstacle. For example, it is seldom that a narrowing of any other than the antero-posterior pelvic diameter requires the application of the forceps at the superior strait. (*Vide* Simpson, *op. cit.*) But this diameter, as I have already shown, cannot be subtended by the forceps; they can only be applied in a diameter nearly or quite at a right angle with it; and whatever compression they are made to exercise upon the corresponding dimension of the head necessarily tends to increase that dimension that lies in the narrowed pelvic diameter, and thereby to increase the difficulty of the case. Whatever elongation of the head may be effected by compression is no compensation for this evil; it is obtained at the expense of an increase potentially of the very cause that demands the forceps. The resistance of the maternal parts to distention is the influence on which we must alone rely to promote elongation of the fœtal head.

Whoever is taught to use compression, either to promote security of hold or elongation of the head, will be pretty sure to overdo the matter, and will be in great danger of inflicting serious injury on the child. The iron levers give great power, and in the excitement of the moment that power is sure to be used. Such warnings as Churchill gives, "to limit the force used to what the head can bear without injury," are entirely useless. The benumbed and wearied muscular sense would deceive the best judgment. The injuries that the forceps are capable of inflicting, not simply on the child's scalp, but by compression upon the bones and even the viscera of its head, are well illustrated in Elliott's Obstetrical Cases, pp. 245, 246, 255—271. On p. 246, Dr. E. "changes his forceps in order to use compression with more effect." So far as the child was concerned, the "effect" evidently might have been spared.

X. Extraction.—It would hardly seem to admit of dispute that the extractive power of the forceps ought to be used in imitation of nature, and, accordingly, in the direction of the expulsive action of the uterine and abdominal muscles as modified by the lines of the pelvic passage. Nevertheless, for some incomprehensible reason, we are told by Prof. Bedford, that the force exerted by the obstetrician should be "one-third extractive and two-thirds

lateral." This is also substantially the advice given by Prof. Meigs and other popular authors on midwifery. Such management of the forceps is not in imitation of nature. Nature does not see-saw or wriggle her burden along. Were the walls of the passage as dry, friable and inelastic as those of a post-hole, or were the fœtal head so rough and angular as to readily secure a bearing on those walls, this *prying it* out would not be unreasonable; but in reality its oval and gliding surface cannot be hastened along its lubricated and elastic road by working it from side to side. True it is, that, if our first efforts at moving the head along fail of success, we may very properly direct our subsequent tractions, tentatively, a little this way and that, distrusting the correctness of our judgment as to the exact law of the case, and thus learn to aid aright the vis-a-tergo. With this exception, based on the imperfection of human judgment, traction is the only function of the forceps.

It has seemed to me that the common conception of the movement of the fœtal head through the pelvis is somewhat erroneous in a very important particular. That traject is far more curvilinear than is commonly supposed. If we compare the distance traveled by the part that emerges from under the pubic arch with the distance that must be traversed by the part that follows the curve of the sacrum, we shall easily see that the head is rotated on the symphysis pubis almost as on a pivot. This must be borne in mind in our extractive efforts; and, at a point to be determined by our judgment, but earlier than is commonly supposed, they should be directed rather to *roll out* than to draw out the head.

The rules that I have thus laid down, especially those for the introduction and locking of the forceps, are sanctioned not alone by my own experience and judgment. More than one of my younger professional brethren have thanked me for my suggestions to them in this matter, and assured me that they had made easy to them an operation that had always before been embarrassing and difficult. I now submit these opinions more publicly to the profession. If my expression of them savors somewhat of disrespect for authority, I trust it will be pardoned. In practical matters of this sort we are far too much governed by authority. I believe I shall have the consent of the great body of our profession when I say that in many other particulars our literature needs a thorough overhauling. It needs it in order to the substitution of simplicity and clearness for complexity and obscurity, to the settlement of questions disputed but not disputable, and to the getting rid of rubbish that has the rottenness as well as the respectability of antiquity.

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN & COOKE, whose catalogue of Medical Books will be sent to any address upon request.]

Opium and the Opium Appetite. By ALONZO CALKINS, M.D. Philadelphia: J. B. Lippincott & Co. 1871.

To quote the writer's own language, "is a maze as bewildering to the understanding as it is dazzling to the eye of fancy." It would be difficult to find, in medical literature at least, a more complex mass of useful and entertaining knowledge, drawn from every source, sacred and profane, medical and poetical, statistical and imaginative, from the Bible to the Arabian Nights, from the Saviour of mankind "sed longo intervallo" to the Chicago Temperance Convention. "The syllabus of topics and cases" could be equaled only by the debris of a dictionary that had passed through a threshing-machine. The work is eminently a learned one, and needs for its completion, a glossary to bring it down to the comprehension of an ordinarily educated mind.

The author has evidently mastered the whole literature of his subject, and has presented much that is valuable, while his conclusions are certainly sound and judicious, inasmuch as, deprecating all the pseudo-philanthropic expedients of the prohibitionist, he advocates such modified legislation as will protect society without infringing upon the liberty of its members, and urges the extension of the culture of the vine. While the author's compilation of facts is highly valuable, and of fancies not less entertaining, his style is deformed by verbiage and pedantry, "for he draweth out the thread of his verbosity finer than the staple of his argument."

The attic salt of classical reference imparts a delightful flavor to literature, but there may be too much salt to the porridge, and it is well to remember the rebuke to the pedantry of the Spanish monks, conveyed in the old proverb, "Sermon sin Agostino, olla sin tocino."

Into such a book it is not surprising that many errors should

have crept, but some of these are inexcusable. For example, his own intelligence should have taught him, in defiance of any authority, that on the other side of "Mason and Dixon" the snuff-dippers "do" not "constitute forty" nor even four "per cent. of the population," as can be proved by authority forty times as competent as his own.

His denunciations of the deceptive description of the so-called delights of opium and hasheesh eating, as depicted in the rhapsodies of Coleridge and De Quincey, are just and true. It is not probable that they present any phenomena varying specifically from those produced by alcohol. The reviewer, although practically familiar with the first and second types of intoxication, is not with the third, and hence cannot speak positively under this head. These same illusive pictures have lured many a weak-brained enthusiast to his ruin.

It is a pity that in discussing the subject of stimulation, so-called, in its various forms, writers will not take the trouble to investigate personally the physiology of the alleged process, and no longer content themselves with assumptions upon prescript. They could thus scarcely fail to arrive at a more correct understanding of the true physiological relations of these so-called stimulants, and thereby form more reliable practical conclusions. W. H.

Selected Obstetrical and Gynæcological Works of Sir James Y. Simpson, Bart., M.D., D. C. L., late Professor of Midwifery in the University of Edinburgh; containing the substance of his Lectures on Midwifery. Edited by J. Watt Black, M.A., M.D., Physician-Accoucheur to Charing-Cross Hospital, London, etc., etc. New York: D. Appleton & Company, 549 and 551 Broadway. 1871. Pp. 852. Vol. 1.

The world-wide reputation of Professor Simpson in his chosen department must render this work an exceedingly popular one as it is certainly of marked excellence. Dr. Black, the editor, was assistant, for five years, of Prof. S., and thus acquired an intimate knowledge of his opinions, modes of practice, and writings, which enabled him to perform his part of the labor with correctness and facility.

The American publishers have produced the present volume in their usual excellent style.

The Anatomical Remembrancer, or Complete Pocket Anatomist: Containing a Concise Description of the Structure of the Human Body. Third Edition; with Corrections and Additions by C. E. Isaacs, M.D., Demonstrator of Anatomy in the University of New York. New York: Wm. Wood & Co., 27 Great Jones street. 1871. 12mo. Pp. 265.

The "Anatomical Remembrancer" is so well known to students that it scarcely needs to be further recommended to them. It is a pocket affair, which is characterized as well by correctness as brevity.

We chronicle its issue, however, with peculiar pleasure as showing that the great publishing house which has reproduced it, has not abandoned publication of medical books as we had surmised. Unless our memory deceives us, this is the first medical book they have published or republished the present year. It will gratify many of the profession to hear that this eminent publishing house have not as yet left the field in which they formerly achieved distinction.

Till the Doctor Comes, and How to Help Him. By George H. Hope, M.D., M. R. C. S. E. Revised, with Additions, by a New York Physician. New York: G. P. Putnam & Sons, Association Building, Twenty-third street. 1871. Pp. 99.

From what attention we have been able to give this little book we are prepared to recommend it as useful for exactly what it is proposed, and physicians may safely and judiciously recommend it to their patrons.

Practical Midwifery and Obstetrics, including Anæsthetics. By John Farmer, M.D., M.A., LL.D., etc., etc. Philadelphia: J. B. Lippincott & Co. London: J. & A. Churchill. 1871. Pp. 237.

Clear and exact, profusely and excellently illustrated, we take pleasure in commending this little book as a companion both for students and "busy practitioners."

Hamilton on Fractures and Dislocations. 1871. Last Edition. Our copy burned. Notice soon.

BOOKS RECEIVED.

A Manual of Midwifery. Including the Signs and Symptoms of Pregnancy, Obstetric Operations, Diseases of the Puerperal State, etc., etc. By ALFRED MEADOWS, M.D., Member of the Royal College of Physicians, etc., etc. First American from the Second London Edition, with numerous Illustrations. Price, $3. Philadelphia: Lindsay & Blakiston. 1871.

"Those who read the first edition of this work will bear us out in thinking that Dr. Meadows's Manual forms one of the most convenient, practical and concise books yet published on the subject. It was especially good as a student's manual, and the author has, in his second edition, sought to make it of equal value to the practitioner. The part which treats of obstetric operations has been well revised, and has received numerous additions, and the several chapters on Unnatural and Complex Labors likewise comprise much new matter. Upwards of ninety new engravings have been inserted in this edition, and, with a view to facilitate reference, the author has furnished it with a very full and complete table of contents and index. We can cordially recommend this manual as accurate and practical, and as containing in a small compass a large amount of the kind of information suitable alike to the student and practitioner.—*London Lancet*, May 6, 1871.

Dilnberger's Handy-Book of the Treatment of Women and Children's Diseases, according to the Vienna Medical School. Part I. The Diseases of Women. Part II. The Diseases of Children. Translated from the Second German Edition, by P. NICOL, M.D. One volume 12mo. Price, $1.75. Philadelphia: Lindsay & Blakiston. 1871.

"We noticed favorably the original of this handbook some months ago and suggested that an English translation of it, with notes showing the main points wherein the practice of our medical schools differs from that at Vienna, might be well received. Mr. Nicol has now carried out this idea, and we imagine that many practitioners will be glad to possess this little manual, which gives a large mass of practical hints respecting the treatment of diseases which probably make up the larger half of every-day practice. The translation is well and correctly performed, and the necessary explanations of references to German medicinal preparations are given with proper fullness.—*The Practitioner.*

Acton's Functions and Disorders of the Reproductive Organs in Childhood, Youth, and Advanced Life. By WM. ACTON, M.D. Third American from the Fifth London Edition. Octavo. Pp. 348. $3.

"We think Mr. Acton has done good service to society by grappling manfully with sexual vice, and we trust that others whose position as men of science and teachers enables them to speak with authority will assist in combating and

arresting the evils which it entails. We are of the opinion that the spirit which pervades it is one that does credit equally to the head and to the heart of the author."—*The British and Foreign Medico-Chirurgical Roview.*

Wright on Headaches. A new Edition. Their Causes and their Cure. By HENRY G. WRIGHT, M.D., Member of the Royal College of Physicians, etc., etc. From the Fourth London Edition. Pp. 154. Price, $1.25.

Mackenzie on Laryngeal Growths. Growths in the Larynx, with Reports and an Analysis of 100 consecutive Cases treated by the author, and a tabular statement of every published case treated since the invention of the Laryngoscope. By MORELL MACKENZIE, M.D., author of "The Laryngoscope," "Diseases of the Throat," etc. Profusely illustrated by wood engravings and chromo-lithographs. Pp. 263. $3.

The Physician's Prescription Book, etc., etc. By JONATHAN PEREIRA, M.D., F.R.S. Fifteenth edition. Price, cloth, $1.25; in tucks, $1.50.

Standard Supply Table of the Medical Department of the U. S. Army, July 1st, 1871. From the Surgeon-General's Office.

The Principles and Practice of Surgery. By JOHN ASHHURST, JR., M.D., Surgeon to the Episcopal Hospital, Surgeon to the Children's Hospital, etc. Philadelphia: Henry C. Lea. 1871.

A Treatise on Human Physiology. Fifth Edition, revised and enlarged. By JOHN C. DALTON, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York; Member of the New York Academy of Medicine; of the New York Pathological Society, etc., etc. Philadelphia: Henry C. Lea. 1871.

A Practical Treatise on Bright's Disease of the Kidneys. Second Edition. By T. GRAINGER STEWART, M.D., F. R. S. E., Fellow of the Royal College of Physicians; Physician to the Royal Infirmary; Extraordinary Member and formerly President of the Royal Medical Society of Edinburgh, etc., etc. New York: Wm. Wood & Co. 1871.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M.D., Lond., Member of the Royal College of Physicians; Lecturer on Pathology and Morbid Anatomy at Charing-Cross Hospital Medical School, etc. Philadelphia: Henry C. Lea. 1871.

Pulmonary Consumption: Its Nature, Varieties, and Treatment. By C. J. B. Williams, M.D., F. R. S., Fellow of the Royal College of Physicians; Senior Consulting Physician to the Hospital for Consumption, Brompton; etc., and Charles Theodore Williams, M.A., M.D., Oxon., Fellow of the Royal College of Physicians; Physician to the Hospital for Consumption, Brompton. Philadelphia: Henry C. Lea. 1872.

Restorative Medicine. An Harveian Annual Oration delivered at the Royal College of Physicians, London, on June 21, 1871. By Thomas King Chambers, M.D., etc. With two Sequels. Philadelphia: Henry C. Lea. 1871.

Cancer: Its Classification and Remedies. By J. W. Bright, M.D. Philadelphia: published by S. W. Butler, M.D. 1871.

The American Practitioner: A Monthly Journal of Medicine and Surgery. Edited by David W. Yandell, M.D., Professor of Clinical Surgery in the University of Louisville, and Theophilus Parvin, M.D., Professor of the Medical and Surgical Diseases of Women in the University of Louisville. Vols. III and IV. Louisville: John P. Morton & Co.

Medical Thermometry, and Human Temperature. By C. A. Wunderlich, Professor of Clinic at the University of Leipzig, etc., etc., and Edward Seguin, M.D. New York: William Wood & Co. 1871.

Diseases of the Skin: the Recent Advances in their Pathology and Treatment. Boylston Prize Essay, 1871. By B. Jay Jeffries, A.M., M.D. Boston: Alexander Moore. 1871.

Modern Medical Therapeutics: A Compendium of Recent Formulæ, and Specific Therapeutical Directions. By Geo. H. Napheys, A.M., M.D., one of the editors of the "Half-Yearly Compendium of Medical Science;" of the "Physician's Annual;" late Chief of Medical Clinic of Jefferson Medical College; etc., etc. Third Edition, Revised and Improved. Philadelphia: S. W. Butler, M.D. 1871.

First Help in Accidents and in Sickness. Published with the recommendation of the highest medical authority. Boston: Alexander Moore. 1871.

Treatment and Prevention of Decay of the Teeth. A Practical and Popular Treatise. By ROBERT ARTHUR, M.D., D.D.S., author of "A Treatise on Adhesive Gold Foil;" etc., etc. Philadelphia: J. B. Lippincott & Co. 1871.

The Young Housekeeper's Friend. By Mrs. CORNELIUS. Revised and Enlarged. Boston: Thompson, Bigelow & Brown. 1871.

Essentials of the Principles and Practice of Medicine. A Handbook for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania; Consulting Physician to the Woman's Hospital of Philadelphia; etc., etc. Third Edition, thoroughly revised. Philadelphia: Henry C. Lea. 1871.

PAMPHLETS.

Recent Advances in Medicine, and their Influence on Therapeutics. The Annual Address delivered before the Norfolk District Medical Society, May 10, 1871, by JOEL SEAVERNS, M.D., Boston. Published by vote of the Society.

One of the greatest necessities of modern medical education is instruction in accurate modes of thought, the development of the faculty of comparison, the art of reasoning; and for this, something more is necessary than to load the memory with specific facts from clinical statistics. Of the truth of this proposition no better evidence is needed than what would be apparent from a careful perusal of the "address" before us, which, beginning with a false antithesis, terminates with a possible inference based upon *conjectures*. The author is evidently a believer in specifics, for he thinks specifically, and seems to ignore the possibility of generalizing data.

The subject of the address, as defined by the author, is the question "whether recent advances in medical knowledge tend to strengthen a belief that by the use of remedies we may prevent, arrest or cure those functional or pathological changes in the bodily organs which constitute disease, or a belief in what is called, *par excellence*, rational medicine."

It is fair to assume the first term of the question, as the author's definition of that which is not rational medicine, although the relations of the words *functional* or *pathological* are by no means

so clear to the mind of the reader as they may have been to that of the writer; and while we are perfectly willing to relinquish to him the task of defining a negation, we do not admit that rational medicine is "well enough defined" in any statement which asserts diseases to be the "passing tenants of the body," or that they occupy any such objective relations thereto.

The quotation from Professor Holmes, "that the more positive knowledge we gain, the more we incline to question all which has been received without absolute proof," would seem to involve an essential truth ineradicable by any even of the author's specifics, and we fail to see how such condition of intellectual conservatism can constitute any barrier to the progress of science.

Condemning the French school for allowing "no isolated fact, no personal experience, to contribute to the stock of knowledge, if opposed to the deductions drawn from tabulated records," the author subsequently (page 116) omits "clinical experiences," "as their results are so incapable of exact proof as to be always open to cavil."

"With this lengthy preface, then," the author "proceeds to look into the issue as between nature and art, or the expectant school and the school of treatment;" and, first, after referring cursorily to the advances in the physiology of the nervous system made by the labors of Marshall Hall, Brown-Sequard and Claude Bernard, goes on to the discussion of the "germ theory of disease," and giving Mr. Burdon Sanderson's definition of micrococci or mycrozymes, states that "microscopists, in investigating the causes of the spread of contagious and epidemic diseases, have been struck by the fact that in bodies affected by certain of these, are found various minute organisms which are *supposed* to have had a part in the production of these diseases;" and upon this *supposition*, based upon occasional observation of isolated appearances, the author proposes a reversion to a belief in specific medication.

Does the author mean to assert that these minute organisms have always and invariably been found under the circumstances referred to? If so, it would establish an *invariable* relation between the organisms and the diseases in question, or, if he could still further show that they were not only invariably found in "bodies affected by certain diseases," but were never found in bodies unaffected, he would then have determined an *essential*

relation between them, and then, and not till then, might he with logical propriety begin to test their causative relation. These conditions unfulfilled; the mere fact of the discovery of the association of microscopic organisms with contagious diseases is incidental, and from it, they may be "*supposed* to have had a part in the production of those diseases," and nothing more. Supposition is not demonstration.

Now when the further fact is asserted, of which we assume the responsibility, that microscopists, under the circumstances referred to, have not found, or have failed to find (even though looking for them, which is a strong point for the microscopist) these same organisms; or again have found organisms identical in character (Bacteria, Bacteridia, Baccilleria) in the freshly drawn urine of a patient suffering from traumatic paraplegia, in the alvine evacuations of another, the subject of diarrhea, in the exudations of aphthous stomatitis in another, in every household utensil containing water which had been allowed to stand for a few hours, in street gutters, all within a period of forty-eight hours, in localities distant from each other more than a mile, under social and sanitary conditions the most widely diverse, but always in the direction of the prevailing wind—we ask, what conclusions, bearing upon the specific relations of these organisms to epidemic disease, can be drawn? The organisms were identical; as determined by multitudinous observations, the morbid conditions, with which they were associated, different. Were they the efficient (specific) cause of the paraplegia, of the diarrhea, or of the stomatitis? Did they cause them all? or were they incidentally associated with them all, under favorable atmospheric conditions?

But granting the possibility of the production of such widely different results from one and the same specific cause, it would seem reasonable that they should be susceptible of removal by the same agent, but in the instance referred to, the diarrhea was relieved by calomel, the stomatitis by strychnia, and the paraplegia by—the sexton. We leave these two series of facts to make their own arguments.

The authority next quotes Dr. Salisbury's "belief that measles were propagated by fungi, or their spores, generated in mouldy straw;" and his subsequent "opinion that intermittent fever was the result of smilar spores which abounded in low lands,"

etc. Also, Hallier, of Vienna, who found "in the alvine discharges of a healthy child with common diarrhea, numerous moving and motionless micrococci" "which may be regarded as identical with those of cholera," as also others found in dysenteric discharges.

So, too, he finds these organisms in the stools of enteric fever, in the blood in recurrent fever, in the sputa in measles, in the pustules of cow pox and small pox, in the blood of scarlet fever, and syphilis, and in the pus from gonorrhea and soft chancre.

All of which observations prove rather too much for the germ theorist, and too little to sustain the author's views of specific medication.

Again, the experiment of Semmer, of Dorpat, quoted by Dr. Nichols, "in which true charbon was produced in a colt by the injection into its jugular veins of water containing bacterids and monococcus cells from an animal with charbon," proves "only this, and nothing more," that charbon is communicable by inoculation.

We will not attempt to follow the author farther through the fascinating field of microscopic investigation in the cultivation of the "germ theory," which he has evidently studied with care and diligence, having said enough, we think, to show its insufficiency to cover the multiple and varied conditions constituting disease, and *ex necessitate* the inefficiency of germ-destroying specifics to rectify those conditions.

In contemplating with our author the brilliant physiological discoveries of Hall, Sequard, Bernard and others, with no desire to depreciate their value, we assert that they are only factors, important factors indeed, in the problem of disease, but isolated, and valueless to the practitioner until associated with the other and varied elements which must be taken into consideration in estimating the sum total of any, even the simplest, morbid process.

Admitting that ergot of rye has the power of exciting contraction in the involuntary or unstriped muscular fibres of the uterus, etc., of what value is this knowledge, isolated from any other, for it is in this relation that the author asserts its value, for when do we ever meet a case of disease in which spasm of unstriped muscle is the only pathological factor?

Again, what practical value is it to know that "bromid of

potass. is a vascular sedative, repressing local congestions of the brain and other organs," unless we know the causes (perhaps irritation of the pelvic viscera) of those congestions, and can remove them?

To some of his physiology we must demur slightly, however, *i. e.*, digitalis certainly increases cardiac action, but *does not* increase arterial tension. To stimulate the action of the heart, and of the arteries at the same time, would be to energize two antagonizing forces, which would neutralize each other, or destroy the mechanism.

Again, we cannot understand how atropia by "contracting the muscular fibres of arteries, stimulating the flow of blood in organs, can assist their functions and even produce active congestion." By contracting the calibre of arteries, the amount of blood conveyed to organs must be diminished, while the rapidity of its flow may be increased, cardiac force remaining unchanged. Moreover, practically, atropia *does not* produce active congestion, but, by contracting the calibre of the peripheral vessels, sends the blood back to the central organ, and if the heart be excited by too great repletion, there results an energetic reflex action which dilates the capiliary vessels and restores vascular equilibrium, temporarily disturbed by the atropia.

These specific effects of drugs are exceedingly valuable, as they constitute the single letters of the alphabet of the science of therapeutics, by whose combinations we hope eventually to construct a language, in which we may learn truths of a broader significance than that this or that drug "is good for" this or that symptom.

At the beginning of his address, and after having attempted to define a negation, *i. e.*, that which *is not* rational medicine, the author thinks that which *is* is "well enough defined" by the following "extract from Dr. Gibson's address on Medicine before the British Medical Association, in August, 1870, quoted by an admirer in the *Boston Medical and Surgical Journal*, of the following month."

"Diseases have," he says, "so to speak, a lifetime of their own, with its periods of growth, maturity and decline. They are the passing tenants of the body which they occupy often with great injury for a limited time. Treatment cannot change their nature, cannot expel them at once, cannot quench them, cannot materially

shorten or prolong their existence." Against which definition we beg leave, in behalf of rational medicine, to protest. In order to properly define rational medicine, it is necessary first to appreciate its object and aim, which is undoubtedly identical with his own, *i. e.*, the prevention and cure of disease; and in order to define disease, it is necessary to understand its relative term, health.

Health is not an entity, but a condition of an entity, a condition characterized by perfect integrity of structure, and equilibrium of function. Any disturbance of this condition, in whatever direction, effectually destroys it, substituting therefor another condition, which is not health, it is dis-ease—ease disturbed.

Now, when we come to consider man in his threefold nature, *i. e.*, mental, moral and physical, and the complex relations which through these media he must hold with all that is outside of himself, and the still more complex correlations of that threefold nature within itself; when it is recognized that the most, apparently, trivial change in any one of these relations may be sufficient to destroy the organism; when we know that the addition of five per cent. to the amount of carbonic acid gas in the atmosphere is sufficient to produce fatal asphyxia; that a violent fit of anger may occasion apoplexy; that the over indulgence of some passion or emotion, good or bad, may result in insanity, or incurable cerebral disease; our view of the causes and phenomena of disease is extended infinitely, and we begin to appreciate the object and aim of rational medicine, and to lose confidence in our ability to unravel these complications with the assistance of drugs alone. When the overworked student comes to us, from his gloomy, ill-ventilated room, with head-ache, disordered digestion, and inability to sleep, shall we give him atropia, because it contracts the muscular fibres of arteries and diminishes the circulation in the brain, and tonics, to improve his appetite? or shall we give him these to remove the consequences of his violation of the laws of life, and at the same time give him fresh air, freedom from care and mental labor, exercise, and simple food—which course, alone, will the more rapidly restore health to that overworked brain?

To the wretched little victim of cholera infantum, breathing the foul air of a crowded tenant house, in a filthy alley, scantily fed on milk from a swill-fed cow, or a whisky-fed mother, which will

soonest restore health, antiseptics, or pure milk and the air of the country or the sea-shore?

Moreover, we assert that the causes of disease are not always direct, immediate, nor simple. In considering the human organism as perverted in disease, we have not before us the simple elements of a type perverted, a special direction, and a specific agent. This were indeed a simple problem for solution, and medicine would be a purely practical art.

But when, as is really the case, the perversion which attracts our attention may be simply "the last straw which has broken the camel's back," the last one of a series of concurrent causes, accumulated during a long time preceding, perhaps a lifetime, perhaps generations, by the agency of hereditary proclivities, personal characteristics, habits and modes of life, occupations, climate and local influences, the problem becomes more complicated, more general, and defies solution by specifics.

Rational medicine proposes to consider disease and its victims in these comprehensive relations, and for its justification can point to the diminished mortality, under any and all forms of disease, to the vastly increased average longevity in communities where it has been the governing influence, and also to the very advances in special departments of knowledge, with which our learned author seems so familiar, which have been made in obedience to the comprehensive demands of rational medicine, to fill some constantly recurring want in her grand scheme of science. W. H.

Report of Committee on Otology of Illinois State Medical Society. By Sam'l J. Jones, M.D., Chicago,

Is confined chiefly to the progress made, more especially during the past year, in diagnosis and treatment of some of the more frequent diseases of the year. Refers to the use of the tuning-fork in determining the condition of the Eustachian Tube, and its mode of application; to chronic catarrh of the middle ear, and the mode of cleansing the middle ear by syringing the same through an incision in the meatus toward the Eustachian Tube and nares, by inclining the head. Considers also suppuration in the mastoid cells, "infantile otilis," and the relations thereto of the parasite asperquillus glaucus.

Referring to the use of electricity in the treatment of aural disease, the committee prefers (very wisely) to suspend judgment until further investigation shall have determined more distinctly the laws of its action.

We are inclined to think that the estimate of Troltsch, which appears to be approved by the committee, of the number of persons suffering from diseased hearing, as two out of every three, to be greatly exaggerated. However true it may be in Germany, it can scarcely apply to America.

The report concludes with valuable practical hints upon illumination of the ear, upon its auscultation, and upon the greater value of the information to be acquired by inspection of the living membrana tympani, than of the dead.

The report is brief, succinct and comprehensive, and constitutes a valuable addition to the very meagre literature of otology in America—qualities which might be imitated with advantage by writers of "Reports" generally. W. H.

The Introductory Lecture to the course on Pathological Anatomy at the University of Pennsylvania. Delivered, September 4, 1871, by JOSEPH G. RICHARDSON, M.D., Lecturer on Morbid Anatomy in the University of Pennsylvania, Microscopist to the Pennsylvania Hospital, etc. Reprinted from the *Philadelphia Medical Times.*

Comes from the pen of one of the most industrious workers, and original thinkers in the ranks of young physic—a staunch defender of the doctrine of "rational medicine," in opposition to the specificists.

The lecturer impresses in a very happy manner upon the minds of his auditors the importance of pathological knowledge to enable them to become accurate diagnosticians, and hence, successful practitioners, and then proceeds to give some original views which we will refer to later.

His definition of life is better than that of Herbert Spencer, whom he quotes, and whose circumlocutions are so vague as to lack almost entirely the characteristics of definitions. It is gratifying to perceive the lecturer's total rejection of the theory of morbid entities, in his definition of disease, as the condition of "abnormal relations," the index to which is pain.

Will not some philosophical pathologist give us a definition of Pain? It would certainly throw much light upon the whole subject of disease.

In regard to the development theory, the lecturer's position appears to be not very clearly defined. While asserting it to be utterly devoid of absolute proof, "as applied to the far distant epochs of all pre-historic times," he yet admits, that "in its limited application to minor variations, it accords remarkably with the events of our own era, daily transpiring before our eyes." Here is a palpable inconsistency. That which is true must be so absolutely, invariably and continually; if the possibility of specific evolution be admitted now, it must be admitted for all past and future time.

While the occurrence of variations in organisms under the operation of modifying external relations, is a fact demonstrated by the daily observation of all, the permanency of any of these varieties under any and all conditions is yet to be exemplified. Indeed, one of the strongest arguments against the development hypothesis is, the reversion of varieties to the original specific type, upon the withdrawal of external influences. That organisms, whether of the human, or of a more humble type, have, within the compass of our observation, reached a higher degree of perfection than they had previously manifested, is no evidence of the truth of the evolution theory, so called, but rather of the emergence of the true type into an actuality which previously existed potentially in the organism, though repressed in its manifestation by unfavorable conditions. For example, in the new-born infant, the man exists potentially, awaiting only time and favorable conditions for his evolution: there is no specific change—no development from a lower to a higher specific grade. So, also, many other organisms are found in an undeveloped condition, which, when more favorably surrounded, reach gradually the full measure of specific perfection of their own type.

In considering the law of heredity, in its relation to disease, the author perceives a constant tendency to degeneration, as a counter movement to that variation towards a higher and more perfect type, which constitutes the datum of the development theory; this tendency to degeneration he has formulated under the expression "The extinction of the unfit," and in this formula suggests the

key to the various "problems of hereditary disease amongst which our life-work is cast."

From the operation of the law thus formulated, the lecturer deduces the cause of the superior health of brutes, as compared with ourselves; the "unfit" among them being rapidly extinguished, while science, as applied in medicine and collateral arts, struggles to counteract this tendency, and to perpetuate the unfit. This is undoubtedly true, and, yet, at the same time, there is another end accomplished, the extinction of the unfit by the restoration of the type, which must not be lost sight of. The very existence of the data necessitating, or even justifying, the conclusion expressed in the author's formula, involves another conclusion also—that there is a limit to the possible perversions of specific type, beyond which the organism becomes unfit to represent the type, and, hence, is extinguished. This law of limitation, which is simply another mode of expressing the author's formula, "the extinction of the unfit," is that under the operation of which the type in all organized beings is preserved, and furnishes in its results one of the strongest arguments against the evolution hypothesis.

Just as varieties, when exempted from the influence of the conditions under which they originated, invariably revert to their original specific type, so morbid varieties are likewise short lived, and either revert to the normal standard, or perish.

The author's hypothesis of "*the inheritance of microscopic peculiarities* of formation," seems to be a necessary constituent of the law of heredity. As peculiarities of feature are undoubtedly transmitted to succeeding generations, so must peculiarities of cell growth and arrangement, which are only the ultimate anatomical factors of these features; but these are simply varieties originating in the influence of temporary conditions, and are extinguished so soon as the influence of these conditions is withdrawn.

We are glad to direct the attention of our readers to this little pamphlet, not only on account of the value of the specific propositions advanced therein, but as a general exponent of the doctrines of the school of "rational medicine par excellence" (to quote the sarcasm of a recent essayist). This author is not satisfied to "feel sure that" "Cod Liver Oil is good for consumption," but thinks

that he will not forfeit his position as a *practical physician* if he should occasionally overlook the drug shop, and prescribe for his patient "nourishing food, pure air, carefully regulated exercise," pulmonary gymnastics, and protection from catarrhal attacks. And so think we. W. H.

Medical Education in America: being the Annual Address read before the Massachusetts Medical Society, June 7, 1871, by HENRY J. BIGELOW, Professor of Surgery in Harvard University. Cambridge: Welch, Bigelow, and Company, University Press. 1871.

The very high reputation achieved by the author of this Essay had induced us to look forward to its perusal with the greatest pleasure. We must confess, however, to have been somewhat disappointed at the disposition manifested in many of its expressions to alienate scientific medicine from medicine as an art, and to lose sight almost entirely of the fact that art, in whatever department of human effort, is simply and solely the superstructure upon the foundation of science. Therefore the broader and deeper the scientific foundation, the grander and more extensive the possible superstructure. Beginning by deprecating the danger of distracting the student's mind "from what is practical, useful, or even essential, by the well-meant enthusiasm of the votaries of less applicable sciences," he proceeds to inculcate as the dominant idea in his address "Utility in Medical Education." The assertion of such a proposition would seem to be superfluous, as it is hardly to be supposed that any one could pursue the study of medicine without the stimulus of such an aspiration.

The deprecation of extensive scientific culture appears to be entirely unnecessary in this essentially utilitarian age, in which short-cuts and by-ways appear to be the most popular roads to knowledge, or, rather, to its results.

Again, while it may be "fair to inveigh against quackery," it is not fair in the author to attempt to condemn as enthusiasm that which is opposed to quackery.

Should the author contemn his Parisian professor for lecturing upon the Plague because, as it could never in all probability plant its grim standard upon Boston common, a knowledge of its pathology and therapeutics would be of no utility to him? Is it not

possible that among the hundreds who listened to that lecturer in Paris there might be some Oriental, whose native land was ravaged by this fell destroyer; or even some adventurous Frenchman, who purposed to utilize his scientific studies to the saving of human life in Smyrna or Aleppo, or some other plague-stricken spot of earth? Such a chance has happened to at least one American student. But our author admits that "there is a limit to this line of argument." "No student or artizan," he says, "is the worse for an outlook upon kindred arts and sciences which will help him to establish the true relations of his own, which will supply him with additional facilities and light for its pursuit, and with that training of his intellectual powers afforded by a systematic variation in their exercise."

In this admission had the author, instead of saying "no student" is the worse, said, every student is the better, he would have conceded all that the most zealous advocates of a comprehensive scientific medical education demand.

We must protest against the author's classification of the profession, into "those who are to do the daily work of medical attendance only, and those who may be expected to contribute something to the development of medical knowledge," "for each of whom a course of education is to be provided, such as will not rise above the proper requirements of the one nor fall below the just expectations of the other." Does he mean to degrade one class into mere hewers of medical wood and drawers of medical water; into mere nurses, who shall receive from the other class their contributions to medical knowledge to be utilized for the benefit of their patients? But how, we would ask, has medical knowledge been developed in the past, but by the generalization of data collected "in the daily work of medical attendance" by this very class which the author seeks to make the very Pariahs of the profession? If these then be deprived of that "training of their intellectual powers," which will make them careful observers and accurate thinkers, how are these data to be acquired, and how can those contributions to medical knowledge be made by this high caste class in the absence of material out of which they may be elaborated? He would demand from one, scientific development without data; from the other, utility in practical art without scientific principles. Further, the author holds "that, as

a rule, outside of surgery and other surface work, it is the disease that turns for better or for worse, and not the physician that turns it," from which the inference is easy that he is disposed to look down from the surgical eminence which he has so justly attained, with somewhat too much of contempt upon those whose labors though perhaps less appreciable to the vulgar eye, are none the less demonstrable and positive in their results. "The balance of healthy function is disturbed; for a varying time the disturbance increases, and for another varying time it diminishes, until the balance is restored." Did the author ever see a case of ulceration and perforation of the intestine resulting in acute peritonitis, in which the patient was saved by controlling absolutely all peristaltic intestinal action until adhesion had occurred? If so, was it the "beast or the driver" that turned out? Will he assert that the duration and mortality of typhoid fever has not been materially diminished within the past twenty years by means of treatment deduced from a more accurate knowledge of its pathology?

How is every practitioner to attain that accurate and well defined knowledge of undisputed therapeutic principles and details, which the author would exact, without a thorough and comprehensive scientific medical education which he would deny him?

"He should know how to treat and of course to identify all common diseases and injuries so that health should be re-established, etc." Would it not be better, we ask, to so instruct the student in scientific principles which underlie all disease, that he should be able to identify "not by *name* perhaps," but by classification under pathological law, both "common" and uncommon "diseases"? When he has provided "fifty of these plain and competent men," he will find it difficult to provide "one who knows more."

"Whatever else it may or may not do, a medical school should aim, first, to give a plain, sound, solid education, without error if without ornament." Granted, but is this amount of acquisition possible to a student ignorant of his own mother tongue, and of the principles of general physics and chemistry? and we can point out to him many such diplomats of schools as prominent as his own.

Again, says our author, "the best practitioner is the man of soundest judgment," an aphorism we cannot gainsay; and further, with good judgment, added to industry and fair ability, you can make an excellent medical practitioner out of moderate medical

acquirement, provided only it be of the right sort. What sort of a practitioner would you make with all these and the highest amount of medical acquirement possible?

"A little learning is a dangerous thing, etc." It is certainly unfair for the author to assume, as he appears to do, that judgment and scientific acquirement must necessarily be in inverse ratio to each other. Cannot a learned man have good judgment? Is it not reasonable to suppose, other things being equal, that the man of learning will have better judgment than the comparatively ignorant man? If this be not true, then why study at all? why not leave the whole field of medical practice to the "natural bone-setters," et id omne genus, who, despising book learning, rely upon judgment as their sole stock in trade?

While it is not necessary generally, in order to be a successful practitioner, to be "acquainted with every theory of fever," to "analyze" the patient "for urea," to "register him with the sphygmograph," "keep a thermometer under his armpit;" or "generate ozone in his apartment;" but we will venture to say: that the man who understands, who knows how to do all these, will in the majority of cases be the better practitioner: if not, then we should throw science where Macbeth would "throw physick"—"to the dogs."

In regard to the distinguished foreign practitioner who treated the case of diphtheria with small doses of copaiba, we cannot agree with the author that he "lacked judgment," he lacked knowledge or moral principle, or both. A little more learning would not "have displaced the landmarks of his judgment," but rather strengthened them.

Still later; says our author these remarks are not intended as a plea for mediocrity. Whatever his intention may be, they have that appearance, to the reader unacquainted with the author's professional life, which by its brilliancy certainly falsifies the tendency of this essay. And moreover they will be assumed as such a plea by half the ignoramuses in the land who affect to see better in their own professional twilight than others in the full daylight of scientific truth.

From the succeeding pages in which the writer indicates some of the subjects which should more especially occupy the student's attention, and from the accuracy and extent of the information

which he demands upon those subjects, we are inclined to think that the author does not practice what he preaches. We feel sure that the following cannot illustrate either his practice or that of any honorable, conscientious physician, viz.: "The matter of prescribing in every day practice stands thus: First, does the disease, on any ground, require a prescription? Second, does the patient? If the former, let the prescription convey, with the word, the blow; but if you prescribe for the patient, and not for the disease, the prescription, then an empty word, a vox, if need be, should convey also a preterea nihil of undoubted innocence."

Again, we have never had the good fortune to see one of our accomplished author's prescriptions, but we cannot believe that "such Latin and English names as are unmistakable" are therein "promiscuously intermingled as vernacular, without regard to case as if the whole were Anglicized." And yet such are his aspirations for his students. The frequent reference which the author makes to the "limited time of the student of medicine," would permit the inference that his period of study must necessarily terminate with that of his pupilage, instead of what is most frequently true, that this marks the beginning of his intelligent study. It is very true that "In this country the question is, What is the most profitable investment of time, capital and labor?—and in answer we say that he who wishes to extract the most *money profit* out of his time, capital and labor, had better leave the study of medicine to others, and devote himself to trade or the mechanical arts, which are pecuniarily infinitely more profitable.

The author would exact from his student accurate knowledge in Anatomy, Physiology and Therapeutics, and yet revolts in disgust at the "Horrors of Vivisection," whose "recorded phenomena, stored away by the physiological inquisitor on dusty shelves, are mostly of as little present value to man, as the knowledge of a new comet, or of Tungstate of Zirconium." We confess our astronomical and chemical deficiencies to such an extent as to render us unable to appreciate the value of the latter, but we have ever been under the impression that, to Magendie and Marshall Hall, Alcock, Prochaska, Romberg, Muller, to Claude Bernard, and Brown Sequard and many others, vivisectors, we owe all that is valuable in modern physiology, or what is the same thing, in physiology—and what is there of medical science, or of medical art, that is not

based upon these very physiological laws, discovered, and discovered only, by vivisection?

There are some curious inconsistencies in this pamphlet, the most striking of which is the following, which we quote as indicating ideas so totally different from the spirit of the rest of the volume, that we cannot help suspecting them to be the real ideas of the author, which he has unconsciously inadvertently allowed to escape him. "Let us have liberal education in its widest sense, the highest education possible to the whole mind, and the whole body of the largest number, everywhere—but then let us begin at the beginning, and teach the child, and not at the end;" to all of which we say most heartily, Amen.

In the portion of the address in which the machinery of education is discussed, he gives a most graphic sketch of the American Medical Association; its pretensions, its powers, and its transactions. He is evidently familiar with the subject; so familiar, that he must have been "one of them."

With regard to the relative advantages of the German or University system of education, and our own or what might be called the free college system, it would be difficult to form any comparison without taking into consideration the wide differences in the spirit and the characteristic of the people of the two nationalities. Without considering these we can only judge by the aggregate results, and so far as statistics are of any value in the account, they must be considered as indicating the practical superiority of our own over the average European practitioner. As specialists they undoubtedly excel us; as general practitioners, the balance, we believe, turns the other way.

It is gratifying, truly, to know the rapid progress which the German school has been making of late toward accuracy of thought, and experiment and vigor of deduction, and there is doubtless room for still further progress in the same direction, which we trust will be speedily realized.

And it is still more gratifying to read the author's mode of killing Huxley's protoplasm, and with it its materialistic basis.

His review of the medical department of the German University is exceedingly interesting, and will well repay for its perusal one not already familiar with its machinery. It can scarcely be disputed, however, that the boasted superiority of the German

graduate over our own, is due very much more to the greater length of time devoted to study, than to any intrinsic superiority in the mode or form of teaching.

Should the present three years' term of our American Colleges be increased, as in them, to five, and a higher standard of preliminary education exacted, the result could scarcely be other than an elevation of the profession in every desirable respect, but we fail to see how that is to be attained by simply re-arranging the subjects of study, all of which are still to be comprehended within the term of three years. W. H.

Cholera Infantum.

One of the best, if not the very best, article upon this all important subject we have ever met, is contained in the September No. of the St. Louis Medical and Surgical Journal from the pen of our accomplished friend, Dr. William S. Edgar, of St. Louis. The article is comprehensive and at the same time concise.

Disregarding the ordinarily assumed causes of the disease, he decidedly attributes the efficient agency in the production of this malady to heat. The meteorological statistics of various European and American cities are cited comparatively with the Mortality Reports, and when collated seem to demonstrate as true, that if long continued and intense heat be not the sole, it is at least an essential factor in the concurrent causes of cholera infantum.

The author's views upon the injurious effects of a diet consisting exclusively or largely of impure milk—and under this head he includes not only that of swill-fed, but also of stall-fed cows—are most just, and deserve to be widely disseminated, and thoroughly impressed upon the minds of the profession and the public as well.

That milk may contain deleterious elements which are entirely unappreciable by any of the ordinary scientific tests, we have been long convinced; and, moreover, that nothing would contribute so largely to the reduction of infant mortality in large cities, as such municipal regulations as would positively prohibit the sale of such poisons, and secure proper food for infants.

Dr. Edgar's article includes his views of the ætiology, pathology, therapeutics and hygiene of the disease, which, as he justly remarks, destroys thousands of children annually in our large

cities. It is undoubtedly more fatal in the aggregate mortality of series of years than Asiatic cholera, and yet while using every precaution to prevent the spread of the latter, we are singularly apathetic regarding the former and greater danger. W. H.

PAMPHLETS RECEIVED.

A Review of Darwin's Theory of the Origin and Development of Man. By JAMES B. HUNTER, M.D. Reprinted from the Journal of Psychological Medicine, July, 1871. New York: D. Appleton & Company. 1871.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part LXIII. July. Uniform American Edition. New York: W. A. Townsend, publisher. 1871. $2.50 a year. Half-yearly parts, $1.50.

The Half-Yearly Abstract of the Medical Sciences, etc., etc. Vol. LIII. July, 1871. Philadelphia: Henry C. Lea. 1871. $2.50 a year. Single volume, $1.50.

Transactions of the American Ophthalmological Society. Eighth Annual Meeting. Newport. July, 1871.

Transactions of the Medical Society of the State of West Virginia. Instituted April 10th, 1867.

The Physicians' Annual for 1872. *A Complete Calendar for the City and Country Practitioner.* Pp. 82. Philadelphia: S. W. Butler, M.D. 1872.

Report of Surgical Cases in the Army. Circular No. 3. Surgeon-General's Office. Washington, Aug. 17, 1871.

First Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois.

Transactions of the Second Annual Session of the Medical Society of Virginia. 1871.

Spectrum Analysis: Three Lectures by Professors Roscoe, Huggins, and Lockyer. No. 7. University Series. New Haven, Conn.: Charles C. Chatfield & Co. 1872.

Addresses at the Inauguration of Allen R. Benton, as Chancellor of the University of Nebraska. Sept. 6th, 1871.

The Old Franklin Almanac for 1872.

Transactions of the Medical Society of the State of Pennsylvania, at its Twenty-Second Annual Session. Sixth Series. Part II.

Remarks upon the Diagnosis of Ovarian Tumors—From Fibrocystic Tumors of the Uterus. By CHARLES C. LEE, M.D., Surgeon to the Charity Hospital, etc.

On Chronic Hypertrophy of the Lips. By R. W. TAYLOR, M.D., Surgeon to the New York Dispensary Department of Venereal and Skin Diseases.

Vick's Illustrated Catalogue and Floral Guide for 1872. JAMES VICK, Rochester, N. Y. Profusely Illustrated. Pp. 120.

L'Union Medicale Du Canada. Revue Medico-Chirurgicale paraissant tous le mois. Redacteur: J. P. Rottot, M.D. Assistant Redacteurs: A. Dagenals, M.D., L. J. P. Desrosiers, M.D., Montreal. Janvier, 1872. Vol. I, No. 1. $3 par annee.

Industrial Monthly. A Practical Journal for Manufacturers, Mechanics, Builders, Inventors, Engineers, and Architects. With a Record of Railway Progress. Vol. I, No. 1. 1872. $1.50 a year. Single Nos. 15 cts. Issued by the Industrial Publication Company, 176 Broadway, N. Y.

New Remedies. A Quarterly Retrospect of Therapeutics, Pharmacy, and Allied Subjects. Edited by HORATIO C. WOOD, JR., M.D., Professor of Medical Botany, University of Pennsylvania, Physician to the Philadelphia Hospital, etc., etc. New York: Wm. Wood & Company, publishers. $2 per annum.

We have become somewhat tired of noticing new journals, which come to us long enough to get a notice and a place on our exchange list and then die out. But from the well known character of the publishers and ability of the editor, we are inclined to believe this new candidate for professional favor will meet with better fortune. The initial No. promises well.

The Kansas Magazine. Vol. I, No. 1. January, 1872.

This is a new secular monthly got up in about the style of the Atlantic, and well filled with original and excellent reading matter. $4 a year. Single copies, 35 cts. Address Kansas Magazine Publishing Co., Topeka, Kas.

Editorial.

Rush Medical College.

The Twenty-Ninth Annual Session of Rush Medical College opened on the 27th ult. The usual introductory exercises took place in the lower lecture room of the college, in the evening, and the regular course of lectures commenced the next morning at nine o'clock. Prof. H. M. Lyman pronounced the Introductory Lecture, which we shall give our readers, by his permission, in the next number of the JOURNAL, and therefore shall not anticipate opinions by eulogizing it.

Professor Freer, again returned from his annual European trip, and we are happy to say in splendid health and spirits, gave the first regular lecture of the course, and was followed by each member of the Faculty in the order of the printed programme.

The only changes we have to note are the retirement of Prof. E. Ingals from the active duties of the chair of Materia Medica and Medical Jurisprudence, his appointment by the Board of Trustees to the Emeritus Professorship of the same branches, and the election and installation of J. H. Etheridge, M.D., an alumnus of the college, in the vacated position. The Board of Trustees accompanied their election of Prof. Ingals to the Emeritus Professorship by a warm expression of their high sense of the ability with which he had discharged the duties of his collegiate position, their profound respect for his personal character, and best wishes for his future prosperity and happiness.

Prof. Etheridge, the new incumbent, advances to the position with the prestige of thorough scholarship, the diploma of Rush, foreign travel and study, considerable experience as a lecturer, personal culture and refinement, and the absolute knowledge on the part of the individual members of the Faculty of his eminent qualifications for the chair.

The senior editor of this JOURNAL is happy to announce that WALTER HAY, M.D., his associate, has kindly consented to deliver, in connection with the course on Practical Medicine, a series of lectures on the Pathology and Therapeutics of the Brain and Nervous System. Due notice will be given of the time when

these lectures will occur, and the senior editor takes the liberty, hereby, of inviting the profession to attend them at their convenience, and he does not hesitate to say they will find themselves amply repaid for the time occupied.

The class assembled is the largest which has been present at the opening of the course for several years.

Surrounded as the college is by a cordon of competing schools, the most of which throw open their doors "without money and without price," the Faculty had every reason to anticipate a considerable falling off in attendance the present session, and are in fact surprised, and of course gratified, at the large attendance. The great book-house of W. B. Keen, Cooke & Co. (our publishers) inform us that their sales of medical books surpass those at the opening of any previous session.

The senior editor congratulates the friends of "Old Rush" on its flattering condition and prospects, and attributes them mainly to its teachings of sound doctrine—of physiological medicine, surgery and obstetrics—conservative in all branches.

Calamity.

The foregoing paragraphs were written for the October No. of the JOURNAL. That No. was delayed a few days for the purpose of announcing the initial exercises of Rush Medical College. The edition was bound and ready to mail to subscribers. The reason why it was not mailed is known to all the world.

There was a fire in Chicago, on Sunday night and Monday morning, Oct. 8th and 9th.

That fire burned over an area in the city of 2,124 acres.

It burned 17,450 buildings, and besides public and business edifices, it consumed the homes of 98,500 people. $300,000,000 were destroyed in a few hours.

Writers of all varieties have exhausted language in description of this supreme catastrophe. The secular prints have been full of it—books have been written about it. We have no words for anything more than the simple facts, above given, and the plain statement that in the holocaust the immense establishment of our Publishers, Messrs. W. B. Keen, Cooke & Co., was totally destroyed. With it went the mail book of the JOURNAL, and the back Nos. for the last two years. Compared with the destruction of their vast

stock of books and stationery, this was a comparatively trivial loss, but it was an exceedingly serious one to the JOURNAL itself.

Messrs. Rand, McNally & Co., Printers of the JOURNAL, were equally unfortunate. They were perhaps the leading house of the Northwest, and the array of their presses, machinery, and supplies of every sort, was utterly bewildering to everybody, except printers of the largest experience. They saved not a pound of type, not a press, a hammer, or a sheet of paper.

As before stated, the October No. of the JOURNAL was burned with the rest of their stock. Not a single No. was saved. Accidentally, one of the workmen had wrapped a photograph in the proof sheet of the form which contained the editorial above. The photograph and its wrapper were in Ohio, and when the proof sheet came back to us, long after the fire, it looked to us literally like "a brand plucked from the burning."

With characteristic energy, Messrs. Keen & Cooke not only made immediate arrangements for re-establishing their general business, but also for the continuance of the JOURNAL. We had hoped for a delay not beyond a month at the latest. But circumstances which we could not foresee prevented. Our Printers have nearly reorganized their immense establishment, but, in consequence of the non-reception of material, which had to be manufactured to order, delay has been inevitable. If we had anticipated this, we should have sent the JOURNAL elsewhere, for temporary printing.

We give you here a consolidated No. It may be called a Fire Number, if desired.

Being now supplied with the usual facilities, subsequent Nos. of the JOURNAL will be issued regularly, as in the time before the fire.

RUSH MEDICAL COLLEGE

Lost its building, and everything it contained. Not a scrap of paper, a bit of apparatus, a book or a bone, was left. Prof. Lyman, from the top of a building, several miles away, saw, through a telescope, the massive self-sustaining roof fall, with a grand rush of flame heavenward succeeding, and was thus the last man to look upon the erect building, and probably the only one who saw it burn, for, while it was being consumed, around for blocks, (we were about to write for miles) there was but a roaring sea—a hell of flame.

Profs. Freer, Blaney, Powell, Holmes, had their homes and offices and other property utterly burned up. Prof. Gunn lost his library, instruments, office furniture, etc. Prof. Rea lost his office, and a large sum in buildings, etc. Drs. Parkes and Wadsworth also lost everything. But space and time prevent details. In another place, in the JOURNAL, will be found an appeal to the profession on behalf of the College, by the Alumni, with a paper, also, from the Board of Trustees, to each of which the earnest attention of readers is solicited.

After an interim of *four* days, only, the lecture course was resumed, and has since been in regular progress. The authorities of Cook County Hospital kindly granted the use of the amphitheatre of their building, for the remainder of the session.

It is gratifying to state that, although nearly every one of the students was burned out, and some lost their all, yet a majority of the class returned to continue their attendance. We do not hesitate to say that, notwithstanding everything, the session thus far has proved pleasant and useful to all concerned.

Many of the Medical Colleges throughout the country tendered free tickets to all students who paid for them here—the Chicago Medical College being the first to make the offer. For this generosity they are entitled to the thanks of Rush Medical College. May they be spared an opportunity of our reciprocating the courtesy.

The rebuilding of the College, of course, is determined upon. It will be finished for occupancy before the next session.

St. Luke's Hospital.

M. O. Heydock, M.D., has been appointed by the Board of Trustees of St. Luke's Hospital, Attending Physician, and I. N. Danforth, M.D., Pathologist.

The American Practitioner

Lays us under renewed obligations by sending the two volumes of their issue for 1871, beautifully bound. It is a very valuable periodical, and we cheerfully commend it to our own subscribers, who wish (and who does not?) to take more than one journal. Address the Publishers, Louisville, Ky., and enclose $3.00.

Bromo-Chloralum.

This is a very efficient antiseptic, disinfectant, and deodorizer. It possesses the decided advantage of being in itself inodorous and nearly devoid of irritant properties, when locally applied. The writer has used it in many instances as a substitute for solutions of carbolic acid, with very pleasant results. It is not anæsthetic or sedative, like the latter, in its local application, and hence, in many instances, is preferable. We consider it a valuable addition to our medical armamentarium.

Diaries.

Our thanks are due to S. W. Butler, M.D., Editor of the Philadelphia Reporter, for a copy of his very excellent "*Physician's Daily Pocket Record*," comprising a Visiting, many useful Memoranda Tables, etc. This book is suitable for any year, and in some particulars is the most convenient issued.

Lindsay & Blakiston issue their diary for 1872 in the form now well known by the profession, it having been many years the same.

A Query to the Board of Health.

Some of your employes take pains to urge the inmates of houses where small pox is present to wear bags of camphor and assafœtida as preventative. Is this by official order?

CHICAGO, November 1st, 1871.

To Whom it May Concern:

This is to certify, that the resident Alumni of Rush Medical College, of the City of Chicago, at a meeting held at the house of E. Ingals, M.D., on the eve of October 17, 1871, appointed the following Alumni an Executive Committee, to draft and present an appeal to the Alumni and friends of the College, for aid to rebuild and refurnish the College Building, viz: T. D. Fitch, M.D., Chairman; H. A. Johnson, M.D., V. L. Hurlbut, M.D., C. T. Parkes, M.D., Ben C. Miller, M.D., and F. A. Emmons, M.D.

E. INGALS, M.D., *Chairman.*
CURTIS T. FENN, M.D., *Secretary.*

AN APPEAL

To the Alumni and Friends of the Rush Medical College, recently destroyed by fire, for aid to assist in its rebuilding.

This College is among the oldest institutions of learning in the Northwest, having been in operation since 1843, at which time the region now tributary to Chicago was but sparsely populated, and had little wealth. During this time it has supplied a pressing need of this new country. It has educated a large number of young men, who are scattered through our whole country, worthily filling places of great usefulness and responsibility; and for this, both themselves and the public are indebted, in a great measure, to the school in which they received their instruction. A large proportion of its students have been possessed of little, save youth, hope, intelligence, and determination. Many of these, having been generously aided by the College, have taken rank among the most substantial members of the profession. The Faculty at all times, since its organization, has been moved by an earnest desire to promote the best interests of the profession and the College. For this its members have labored faithfully and earnestly; they have met the pecuniary burden of the School from its first foundation, and four years since they erected from their own resources, at an expense of $70,000, the most ample and best appointed college building on this continent, and filled it with every necessary appliance for successful teaching, and the influence and usefulness of the School has steadily increased from year to year. But in a day, the College Building, with all its contents, was swept away, along with a large part of the city, in which it stood a peer among many other noble institutions of learning. The pecuniary loss of the Faculty, in the destruction of the College, is light when weighed against others they have sustained. A number have lost nearly everything, and all have suffered much. The College must be rebuilt. Its past history, its future promise for good, demand no less. Under the circumstances, it is unreasonable to expect the Faculty to do this unaided. The College is now in a condition to justify an appeal to its Alumni, and to society, for some return for the favors it has conferred upon both. There is, perhaps, no field of benevolence, that offers a richer return than to provide adequate and easy opportunities for instruc-

tion to those who desire to become learned in the best means for assuaging pain and healing the sick.

All donations may be remitted to Chas. T. Parkes, M.D., 462 Elston Av., Chicago, who has been elected treasurer for the fund. They will be thankfully acknowledged, and faithfully devoted to the rebuilding of the College.

MEETING AND ORGANIZATION OF THE COMMITTEE.

At an appointed meeting of the Executive Committee, held at Cook County Hospital, October 26th, 1871, all the members being present, Dr. T. D. Fitch in the Chair, the Committee organized by the election of the following officers: F. A. Emmons, M.D. Secretary, Ben C. Miller, M.D., Assistant Secretary, C. T. Parkes, M.D., Treasurer, who was required to give good and satisfactory bonds in the sum of thirty thousand ($30,000) dollars, for the faithful performance of his trust, which bond has been furnished and duly accepted.

T. D. Fitch, M.D., *Chairman.*
F. A. Emmons, M.D., *Secretary.*

The Trustees of Rush Medical College to its Alumni, Greeting:

The late terrible conflagration which devastated so large and fair a portion of Chicago, swept out of existence nearly all of the material part of your Alma Mater. Rush Medical College exists to-day only in its legal organization, the lot on which the College building stood, the energy of its Trustees and Faculty, and the love and fidelity of its Alumni.

The college edifice, so recently and expensively erected, the chemical and physiological laboratories, the museum, and all the appliances of teaching, are gone, and a sad material ruin replaces them.

The Trustees are, however, cheered and encouraged by the expressions of sympathy and offers of pecuniary assistance which have come to them from many of the Alumni, in different parts of the country. The Alumni in Chicago have appointed a committee to appeal to their brethren, in behalf of their Alma Mater. This appeal the Trustees most heartily approve and endorse; and while all sums which may be offered will be most thankfully received, they are confident that fortune has smiled upon very many of the sons of "Old Rush," and that among these favored ones there

are generous hearts, which will prompt to munificent donations. To such they make the following offer:

For every donation of five hundred dollars the Trustees will establish a perpetual free scholarship, which shall bear the name of the donor, and which shall be conspicuously emblazoned on the wall of the lecture room. A certificate of this scholarship, engrossed on parchment, will be issued to the donor; which certificate shall secure to the bearer, free tuition, and when found qualified, free graduation. This certificate shall be perpetual in its operation; and thus the donor will have endowed for one student each year a Free Medical College.

WM. B. OGDEN, *Chairman.*
GRANT GOODRICH, *Secretary.*

Light out of Darkness.

"To every cloud there is a silver lining," and the cloud of gloom which has overshadowed the charred embers of our once beautiful city, is no exception to the rule. Scarcely had the fire fiend arrested his destroying tread, and ere the smoke of the conflagration had subsided; when the tidings of our great calamity which rendered houseless and destitute so many of our professional brethren, in common with their fellow citizens, were flashed across the world, there came back to us, borne upon the wings of the lightning, cheering messages of aid from the members of our noble profession all over the land. The differences of Doctors have been proverbial. They differ now only in a noble emulation to excel each other in generosity to their suffering brothers.

The old proverb, "Three physicians, two atheists," must be altered in this our day, to "Three physicians, two philanthropists." The disaster which has befallen us has given our profession the opportunity to vindicate itself, and to demonstrate on a grand scale that philanthropic spirit which is the real characteristic of the true physician.

Never was there occasion more urgent for philanthropic zeal, and never was occasion more promptly seized, nor zeal more ardently manifested.

On the evening of the 8th of October, the great conflagration began, and continued its ravages until the afternoon of the 9th.

On the 11th, a stated meeting of the New York Pathological Society was held, at which it was—

Resolved, That the following communication be sent to the Physicians of Chicago:

To our Brethren in the Medical Profession of the City of Chicago:

Believing that in consequence of the recent calamitous fire many of you have suffered serious pecuniary losses, and fearing that some may be in actual want, we desire to be informed what aid we can render you.

We would be glad to inaugurate measures for the establishment of a relief-fund, and to appeal to the medical profession in this city, and throughout the country, in its behalf, provided you confirm its propriety and necessity.

It is perhaps needless to say that, while we would not stay the hand of charity extended to the suffering people of Chicago, without reference to class, this suggestion of relief is not intended for any except those whom we recognize as honorable and legitimate members of our profession.

(Signed) A. L. LOOMIS, M.D., *President.*

G. F. SHRADY, M.D., *Secretary, New York Pathological Society.*

A meeting of the members of the medical profession was called in St. Louis, which was called to order by Dr. Gregory, and of which Dr. Marshall was elected Chairman, and Dr. Hurd, Secretary.

Dr. Kinnard offered the following preamble and resolutions, which were adopted:

WHEREAS, many members of our profession, in common with the public at large, have already contributed liberally to the common charitable fund raised by the citizens of St. Louis for the Chicago sufferers; therefore, be it

Resolved, That our meeting to-night has been called together to enable the regular medical profession of St. Louis to act in concert in their efforts to aid such worthy medical men of Chicago as may have been rendered destitute by the late disastrous conflagration that laid waste so large a portion of that city.

Resolved, That we believe our object can be best accomplished by sending two delegates from the profession of St. Louis to that city, whose business it shall be to diligently inquire into the necessities of our brethren there, and to aid such as may be needy and deserving, as far as practicable, with the amount which may be placed in their hands for that purpose.

Resolved, That the committee, on its return, report the prospective needs of the destitute members of the profession in Chicago.

Dr. Hammer moved that a committee of two physicians from each ward be appointed to solicit subscriptions for the object in view.

The motion prevailed, and the following committees were appointed:

Carondelet—Drs. Starkloff and Outen.
First Ward—Drs. Reis and Hickman.
Second Ward—Drs. Fred. Hauck and Castelhuhn.
Third Ward—Drs. Green and Wall.
Fourth Ward—Drs. Porter and Borck.
Fifth Ward—Drs. Hammer and Mudd.
Sixth Ward—Drs. Gill and Bates.
Seventh Ward—Drs. Hill and Newman.
Eighth Ward—Drs. Heyer and Coleman.
Ninth Ward—Drs. Guhman and Hawley.
Tenth Ward—Drs. Baker and Rohlfing.
Eleventh Ward—Drs. Scott and Lingenfelder.
Twelfth Ward—Drs. Carrington and Strotholte.
Elleardville—Dr. Tyler.
Lowell—Dr. Ben Linton.

Cheered by these evidences of sympathy from our professional brethren, a large meeting of the members of the medical profession of Chicago was held at No. 797 Wabash Avenue, on Tuesday evening, October 17th, at which Dr. N. S. Davis was elected Chairman, and Dr. E. Andrews Secretary. At which meeting the above communications were read, as also the following telegraphic dispatch:

NEW YORK, Oct. 17, '71.

DR. H. A. JOHNSON,
Chairman of Sanitary Committee:

Over two thousand dollars subscribed by medical men this evening for suffering physicians of Chicago. Organize for its distribution, and draw on Dr. S. T. Hubbard, twenty-seven West Ninth st. Further amts. to be reported.

(Signed) E. R. PEASLEE, M.D.,
Chairman.

Whereupon Drs. Moses Gunn, E. Andrews, and A. Fisher, having been appointed a committee to recommend suitable persons for a permanent Relief Committee of five, nominated the following gentlemen: Drs. De Laskie Miller, N. S. Davis, T. D. Fitch, Ernst Schmidt, and Walter Hay. Which nomination, having been unanimously confirmed, the following resolutions were adopted:

Resolved, That the Committee just chosen is hereby authorized to receive all donations for the relief of respectable physicians, who are sufferers by the late fire, distribute the same at their discretion, and render a strict account with vouchers, to any future meeting, which may be called by the chairman to consider the same.

Resolved, That this meeting tender the cordial and heartfelt thanks of the profession of this city, to their brethren in other and distant cities, for the prompt and liberal offers of assistance to the many among us who have lost, by the late terrible fire, not only their homes, clothes, books and instruments, but their practice, and pledge a just use of whatever is given.

On Wednesday, October 18th, the Committee having organized, issued a circular embodying the resolutions passed at the preceding general meeting, together with the following notice:

Contributions may be forwarded at once by Express, or Draft on New York, to Walter Hay, M.D., Secretary Medical Relief Committee, No. 384 Michigan Avenue.

Donations from Publishing Houses, Instrument Makers and Physicians, of Books, Instruments or Apparatus, will be gratefully received; as many of our professional brethren have saved only their lives.

COMMITTEE.

DE LASKIE MILLER, M.D.,
No. 518 Wabash Ave., *Chairman.*
N. S. DAVIS, M.D.,
No. 797 Wabash Ave., *Treasurer.*
ERNST SCHMIDT, M.D.,
No. 387 State Street.
T. D. FITCH, M.D.,
No. 296 West Monroe Street.
WALTER HAY, M.D.,
No. 384 Michigan Ave., *Secretary.*

On the 19th the following telegram was received:

NEW YORK, Oct. 19, '71.

JNO. H. RAUCH, M.D.,
Board of Health, Chicago:

Committee meet Saturday night; send full statement.

(Signed) FRANK H. HAMILTON, M.D.

On the 20th Oct., the following notice was published in all the city papers, English and German:

To Physicians, Sufferers by the Fire:

The Committee appointed by the physicians of Chicago, to receive and disburse contributions, forwarded by our professional brethren, for the relief of those members of the profession who have suffered by the fire, having organized, respectfully request all regular physicians in good standing, who have sustained losses in

this great calamity, to present to the Secretary, or to any member of the Committee, written statements of the amount and character of their respective losses, and of their present necessities (together with former and present addresses) in order that they may be relieved with the least possible delay, and that justice may be done to all in the distribution of this noble charity.

DE LASKIE MILLER, M.D.,
No. 518 Wabash Ave., *Chairman.*
N. S. DAVIS, M.D.,
No. 797 Wabash Ave., *Treasurer.*
T. D. FITCH, M.D.,
No. 296 W. Monroe St.
ERNST SCHMIDT, M.D.,
No. 385 State St.
WALTER HAY, M.D.,
No. 384 Michigan Ave., *Secretary.*

On the same evening, Oct. 20, Drs. Edgar and Hermann, the Committee appointed by the profession of St. Louis, arrived, bringing the first material aid to the sufferers, to the amount of ($900) nine hundred dollars, which was distributed by themselves, after consultation with the Committee, in eighteen checks of ($50) fifty dollars each, to an equal number of physicians who were deemed by the Committee, from the best information in their possession, to be in the most pressing want. These were placed on the following day, Oct. 21, in the hands of the Secretary (Dr. Hay) for distribution, the checks being drawn to the order of the beneficiaries respectively, and signed by the chairman of the St. Louis Committee.

On the 25th of October, the Committee were cheered by the receipt of the following letter:

No. 43 W. 32D ST., NEW YORK, Oct. 22d, '71.

My Dear Doctor:

We have received from the medical men and medical students of this city $4,700 and a little over, (and we hope this sum may be increased) in aid of the doctors who have suffered by fire in Chicago. I ought, however, to mention that the "Executive Committee" has authorized its chairman, Dr. Peaslee, and Dr. Hubbard, together constituting a "sub-Committee," to divert a portion of this money according to their discretion, to such physicians in other parts of the Northwest as have suffered from the recent fires. They also desire that, in disposing of the money sent to you from us, you will not overlook the claims of medical students who may have suffered in like manner. The medical students at our various medical colleges in New York have contributed very liberally to the common fund.

We are now waiting to hear from the medical men of your city, what organization they have effected, and who is authorized to receive the money.

As you, with other physicians of Chicago, have received communications both from the Pathological Society, and from a "Meeting of Physicians," of which Dr. Peaselee was chairman, it may be necessary to explain, that the action of the Pathological Society terminated, being merged into the later action of the meeting, and that both are represented by the "Executive Committee," in whose name and by whose direction I am now addressing you.

Will you be kind enough to lay these facts before the physicians of Chicago, and to request them to inform us who is authorized to receive the funds.

Very truly yours,

FRANK H. HAMILTON, M.D.,

Chairman Executive Committee Chicago Doctors' Relief Fund Organization, New York City.

JNO. H. RAUCH,

Board of Health, Chicago.

On the 24th of October, a communication was received from the Academy of Medicine, Cincinnati, through Dr. C. C. Comegys, its President, enclosing the sum of - - - - - - - - $392

Also, one from Dr. Francis Minot, of Boston, enclosing - 10

Also, from Dr. H. Kiefe, of Detroit, - - - - - - - 25

Also, from Dr. Mergler, of Wheeling, Cook Co., Ill., to be given to two of the poorest German physicians, - - - 20

By this date the number of applications for relief, sent in to the Committee, in compliance with its published notice, amounted to seventy-six. The Committee, upon consultation, decided to classify these applicants as follows:

1st. Those known, personally, or by satisfactory certificates, to be legitimate and honorable members of the profession, were placed upon the relief list;

2nd. Those unknown and not authenticated were placed upon the reserved list for investigation; and

3rd. Those known to be irregular, or, if regular, disreputable, were placed upon the rejected list.

The first class of this division was again subdivided into three, viz.:

1st. Men with families, who had lost residences, offices and practice, constituted the 1st class;

2nd. Those having lost only residences or offices, and had a portion of their practice left, formed a second class; and

3rd. Young men without dependents.

It was also decided to classify medical students in the same manner.

There was at this date in the treasury,	$447
Which was apportioned thus:	
To three physicians of the first class, $50 each,	$150
To five of the second class, $25 each,	125
And to nine of the third class, $10 each,	90
To two German physicians $10 each, Dr. Mergler's donation,	20
Stationery, printing and express,	5
Leaving balance in treasurer's hands,	57
	$447

On Oct. 27 the following letter was received:

NEW YORK, Oct. 24, 1871.

DR. WALTER HAY—*Dear Sir:*

Enclosed you will please find my check for Two Thousand Dollars, payable to your order for the benefit of the suffering medical men of Chicago, of respectable standing in our profession. Please acknowledge the receipt of the same on reception.

(Signed) S. T. HUBBARD, M.D.,
Treasurer, No. 27 W. 9th St.

P. S. The circular on which was printed your transactions was misdirected, otherwise the check would have been sooner sent; more will soon be sent you.
S. T. H.

On the 28th of October, further donations were received, as follows:

From C. E. Buckingham, Boston, Mass.,	$25
From the Academy of Medicine, Cincinnati, O., through Dr. C. C. Comegys, President,	65
From Franklin Bonney, M.D., Hadley, Mass.,	14
	$104

At the meeting of the Committee on Oct. 28th, the number of applicants had increased to ninety-nine—of which seven had been rejected for the causes already decided upon by the Committee.

Of the ninety-two remaining, thirty-five had been already relieved as exhibited above, and to this number eighteen were added, making the total number of beneficiaries fifty-three.

To six of these, seventy-five dollars each was awarded,	$450
To one, sixty-five,	65
To fifteen, fifty,	750
To twelve, thirty,	360
To four, twenty-five,	100
To eight, twenty,	160
Total,	$1,885

Total receipts to date,	$3,451	
Total disbursements,		$3,175
Balance in Treasurer's hands,		276
	$3,451	$3,451

November 1, a donation was received from the Kings Co. Medical Society of Brooklyn, per Dr. J. H. H. Burge, Prest., by Prof. Moses Gunn, and by him handed to the Committee, of $1,000. And on November 3d, the Secretary received from Dr. S. T. Hubbard, Treasurer of the New York Executive Committee, his check for $2,000.

On Saturday, Nov. 4, the Committee met to make its third apportionment, at which time the number of applicants had increased to one hundred and twelve. The total number of rejections sixteen. Twenty-one were suspended for further examination, and the beneficiary list was increased to seventy-five, of which—

One received		$135
Six received $100 each,		600
Fifteen received $45 each,		675
Ten received $35 each,		350
Eight received $25 each,		200
And nineteen received $15 each,		285
Total,		$2,245
Amount received to date,	$6,588	
" disbursed to date,		5,420
Balance in hands of Treasurer,		1,168
	$6,588	$6,588

On November 6, a contribution was received from the German physicians of Baltimore, through Dr. A. Friedenwald, by Dr. Ernst Schmidt of this Committee, of $132, together with Dr. Friedenwald's personal contribution, $5. At the same date the following letter was received by Prof. Moses Gunn, and by him handed to the Committee:

17 Clinton St., Brooklyn, Nov. 1, 1871.

Prof. M. Gunn—*Dear Doctor:*

Two of my colleagues in the Brooklyn Eye and Ear Hospital, Drs. Matthewson and Prout, and myself, are contributors to the fund raised by the Kings County Medical Society, for the profession in Chicago. Hearing that the

Chicago Eye and Ear Infirmary was destroyed by the fire, it would greatly please us if the sum we contributed, viz., ($75.00) seventy-five dollars, were placed in the hands of Dr. Edward L. Holmes to assist in the continuance of his clinic.

(Signed) H. G. NEWTON, M.D.

Dr. Newton has requested me to enclose this in the same envelope with my letter to you. It is not intended to be in any sense official. So far as the suggestion may seem to you and to your associates a wise one, it has my approval.

(Signed) J. H. HOBART BURGE, M.D.

Accompanying the above letter was a check for $100.

On the 23d of October, the following notice to the profession was issued in Philadelphia, of which copies were forwarded to the Committee:

PHILADELPHIA, Oct. 23, 1871.

Dear Sir:

The undersigned, a committee appointed by the Citizens' Executive Committee to aid the Chicago sufferers, earnestly request you to be present at a meeting of the profession, to be held at the Hall of the College of Physicians, N. E. Corner of Thirteenth and Locust Streets, on Wednesday, Oct. 25, at 8 P. M.

Respectfully, etc.,

(Signed) H. LENOX HODGE, M.D., *Chairman*,
THEO. A. DEMMI, M.D.,
WM. B. ATKINSON, M.D.,
R. M. GIRVIN, M.D.,
WM. H. PANCOAST, M.D.,
COMMITTEE.

WM. B. ATKINSON, M.D.,
Secretary.

The Committee have been informed, that at the meeting called by the above circular, it was decided to add the contributions of physicians to the General Relief Fund, raised by the citizens at large in aid of the Chicago sufferers.

The Committee regret this decision of our Philadelphia brethren by which the members of their own profession here, for whose aid their contributions were largely intended, will be cut off from its benefits.

Total receipts, up to November 15,	$6,825	
Disbursements to physicians,		$5,425
" for incidentals,		10
Balance in Treasurer's hands,		1,390
	$6,825	$6,825

The fund has been distributed specifically, up to the present date, Nov. 15, as follows. Of those to whom relief has been given—

One has received,	$165
One has received,	145
Seven have received $135 each,	935
One has received,	125
Thirteen have received $100 each,	1,300
Four have received $90 each,	360
One has received,	85
One has received,	80
Five have received $75 each,	375
One has received,	65
Seven have received $50 each,	350
Thirty have received $45 each,	1,350
Three have received $30 each,	90
	$5,425

November 15, received from the New York Executive Committee, per Dr. S. T. Hubbard, Treasurer, $1,000, which leaves an unexpended balance in the Treasurer's hands of $2,405.

W. HAY, M.D.,
Secretary.

LIST OF PHYSICIANS

Sufferers by the late Fire, October 8th and 9th, 1871.

The following list comprises the names and former and present offices and residences of physicians who have been burned out, corrected up to Nov. 15, as far as it was possible to ascertain.

1. Adam, A.—Residence, 438 N. Wells st.; office, 226 N. Clark st. All within the burnt district. Loss, total. Present location, S. Halsted st. and Canalport av.
2. Acharius, W.—Residence, 130 Townsend st.; office, 49 Chicago av. All within burnt district. Loss, total. Present location, 162 W. Harrison street.
3. Arndt, P. S.—Residence and office, 154 Madison. All in burnt district. Loss, total. Present location, 95 W. Randolph st.
4. Ashworth, Charles.—Residence and office; all in burnt district. Loss total.
5. Avery, S. J.—Residence and office, 154 Madison st.; all in burnt district. Loss, total. Present residence, 328 Walnut st.; present office, 95 W. Randolph street.

6. Baxter, A. J.—Residence, 263 Ontario st.; office, 121 S. Clark; all within the burnt district. Loss, total. Present residence, 185 S. Morgan; present office, 49 S. Halsted.
7. Buckley, C. C.—Residence, 287 Illinois st.; office, 37 Rush st.; all in the burnt district. Loss, total. Present residence, 345 W. Randolph st.
8. Blaney, J. V. Z.—Residence, 289 Illinois st.; office and laboratory, 143 Madison; all in the burnt district. Loss, total. Present residence, 1025 Wabash av.; present office, cor. State and 18th sts.
9. Barnes, Norman S.—Residence and office, cor. State and Madison; in the burnt district. Loss, total.
10. Barnes, P. S.—Residence and office, 66 Madison; in burnt district. Loss, total. Present residence and office, 328 W. Madison st.
11. Bogue, R. G.—Residence, 9 Washington place; office, 100 Washington st.; in the burnt district. Loss, total. Present office and residence, 321 W. Monroe st.
12. Blanchard, Wallace.—Office, 81 Monroe st.; in burnt district. Loss, contents of above. Present residence and office, 265 Michigan av.
13. Brooks, J. W.—Office, 55 Clark st.; in the burnt district. Loss, contents of office. Present residence and office, 857 Wabash av.
14. Bond, T. S.—Office, 47 S. Clark; in the burnt district. Loss, contents of office. Present residence and office, 16 Centre av.
15. Byford, W. H.—Residence, 194 Michigan av.; office, 62 State; all in the burnt district. Loss, nearly total. Present residence, Cottage Grove av.; present office, 785 Wabash av.
16. Case, L. W.—Residence, 317 Division st.; office, Rush Medical College; in the burnt district. Loss, total, except books, clothing and bedding. Present residence, Newberry School.
17. Cunningham, George P.—Residence and office, 129 Oak st.; in the burnt district. Loss, total. Present residence, cor. Jefferson and Randolph streets.
18. Croskey, William.—Residence and office, 98 3rd av.; in the burnt district. Loss, total. Present residence, 913 Indiana av.
19. Carleman, M. B.—Residence, 76 Sedgwick st.; in burnt district. Loss, total, except some bedding and clothing. Present residence, 48 4th street.
20. Cooley, Orrin.—Residence, 374 Chicago av.; office, 370 Chicago av.; in the burnt district. Loss, total. Present residence and office, 260 S. Halsted street.
21. Dysart, J. W.—Residence and office, 447 N. Clark st.; in burnt district. Loss, total. Present residence, 289 W. Randolph st.
22. Freer, J. W.—Residence, 224 Ontario st.; office, Rush Medical College; in burnt district. Loss, total. Present residence and office, 1045 Wabash avenue.
23. Fiske, Calom P.—Residence and office, 249 S. Clark st.; in the burnt district. Loss, total. Present residence, 14 Willard place.

24. Geiger, Henry.—Residence and office, 250 N. Clark st.; in burnt district. Loss, total. Present residence, 39 Archer av.
25. Gray, A. W.—Residence and office, 66 Madison st.; in the burnt district. Loss, total. Present residence, 667 Fulton st.
26. Garvin, H. D.—Office, 169 Dearborn st.; in burnt district. Loss, contents of above. Present office, 255 W. Madison st.
27. Hurlbut, V. L.—Residence and office, 104 Randolph st. Loss, contents of same. Present office, 364 Wabash av.
28. Herz, Cornelius.—Residence, 630 N. La Salle st.; in burnt district. Loss, total. Present residence, 114 S. Jefferson st.
29. Hyde, James N.—Residence and office, 101 S. Clark st.; in burnt district. Loss, total. Present office, 125 22nd st.
30. Hempstead, Charles M.—Office, 55 S. Clark st.; in burnt district. Loss, contents of office. Present residence and office, Ashland av.
31. Hahn, James A.—Office, cor. Dearborn and Randolph sts.; in the burnt district. Loss, contents of office. Present residence and office, 430 Michigan av.
32. Hunt, W. C.—Residence, 271 Erie st.; office, Rush Medical College; in burnt district. Loss, total. Present residence, 657 Monroe st.; present office, 318 W. Madison st.
33. Hollister, J. H.—Office, 164 State st.; in burnt district. Loss, contents of office. Present office, cor. State and 18th sts.
34. Kelly, F. W.—Residence, 250 Wabash av.; office, 154 Washington st.; in burnt district. Loss, total. Present residence, 96 W. Washington st.
35. Knox, W. A.—Office, 106 S. Clark st.; in burnt district. Loss, contents of above. Present residence, 535 W. Adams st.; present office, 185 W. Madison street.
36. Kirschstein, H.—Residence, 252 5th av.; office, 249 S. Clark; in burnt district. Loss, total. Present residence, 194 Cottage Grove av.; present office, 394 S. Clark st.
37. Leonard, R. L.—Residence, 179 Huron st.; office in Mariner's Chapel; in burnt district. Lost, almost total. Present residence, 139 N. Morgan street.
38. Lyman, W. C.—Office, 119 S. Clark st.; in burnt district. Loss, contents of above.
39. Loverin, N.—Residence and office, 208 Randolph st.; in burnt district. Loss, total. Present residence, 146 W. Jackson st.
40. Leslie, S.—Residence and office, 190 S. Clark st.; in burnt district. Loss total, excepting $200 of clothes and instruments. Present residence, 387 State street.
41. McDonald, P. S.—Office, cor. Clark and Harrison sts.; in burnt district. Loss, office and contents. Present office, 351 S. Clark st.
42. McArthur, J. D.—Residence and office, 234 Dearborn st.; in burnt district. Loss, total. Present office, 50 W. Madison st.
43. Mackey, H. A.—Residence, 272 Indiana st.; in burnt district. Loss, total. Present residence, 760 State st.

44. Morgan, A. G.—Residence, 101 Huron st.; in burnt district. Loss, total, except a little furniture in damaged condition. Present residence, 246 Fulton st.
45. Martin, William.—Residence and office, 112 Randolph; in burnt district. Loss, total. Present residence and office, 589 Wabash av.
46. Maynard, Wm. J.—Residence at Marine Hospital; office, 21 Washington st.; in burnt district. Loss, total. Present residence and office, 424 W. Van Buren street.
47. Merriman, H. P.—Office, cor. State and Monroe; in burnt district. Loss, contents of above. Present office, 785 Wabash av.
48. O'Ryan, Charles D. B.—Residence, 248 N. Wells st.; in burnt district. Loss, total. Present residence, Jefferson, Cook Co.
49. Parkes, Charles T.—Residence, 224 Ontario st.; office, Rush Medical College; in burnt district. Loss, total. Present residence, 462 Elston av.; present office, 121 22nd st.
50. Powell, Edwin.—Residence and office, 45 S. Clark st.; in burnt district. Loss total. Present office, 318 W. Madison st.
51. Price, O. J.—Residence, 65 W. Van Buren st.; in burnt district. Loss, total. Present residence, 92 W. Van Buren st.
52. Reed, John.—Residence, 15 Washington place; burnt district, North side. Loss, total. Present office, 273 W. Randolph st.
53. Simpson, John.—Residence, No. 6 W. Oak st.; in burnt district. Loss, total. Present residence, 166 Curtis st.
54. Smith, H. R.—Residence, 167 S. Clark st.; in burnt district. Loss, total. Present residence, 1100 Indiana av.
55. Scheppers, D. Q.—Residence, 292 Larrabee st.; in burnt district. Loss, total. Present residence, 157 Mather st.
56. Savage, A. C.—Residence and office, 233 Madison st.; in burnt district. Loss, total. Present residence, 133 W. Madison st.
57. Schwarz, H.—Residence, 184½ S. Clark st.; office, 41 N. Clark st.; in burnt district. Loss total. Present residence, 62 Milwaukee av.
58. Sherman, Julien S.—Residence, 297 Wabash av.; office, 81 Monroe st.; in burnt disrict. Loss, total.
59. Starkweather, Ralph E.—Office, 169 Dearborn st.; in burnt district. Loss, contents of above. Residence and office, 368 Michigan av.
60. Smith, Charles G.—Residence and office, 169 Dearborn st.; in burnt district. Loss, total. Present office, 100 16th st. and 229 W. Madison.
61. Thibodo, R.—Residence and office, 41 N. Clark street; in burnt district, Loss, total. Present residence, 125 N. Desplaines st.
62. Thompson, D. D.—Office, 169 Dearborn st.; in burnt district. Loss, office and contents. Present and former residence, 37 Myrick av.
63. Teare, John.—Residence, 129 Huron st.; in burnt district. Loss, total. Present residence, 152 N. Sangamon st.
64. Trimble, D. B.—Residence, Geneva, Wisconsin; office, 156 N. Clark st.; office in burnt district. Loss, a few books. Present office, 119 22nd st.

65. Varges, L.—Residence and office, 680 Sedgwick st.; in burnt district. Loss total. Present residence, 159 Cottage Grove av.
66. Van Doozer, B. R.—Residence, 122 3rd av.; office, 112 oMnroe st.; in burnt district. Loss, total. Present residence, 420 Burnside st.; present office, 120 S. Halsted st.
67. Weeks, J. F.—Residence and office, No. 118 S. Clark st.; in burnt district. Loss, total.
68. Wagner, William.—Residence 363 N. Clark st.; office, 28 N. Clark st.; in burnt district. Loss, total. Present residence, 295 W. Lake st.
69. Williams, J. F.—Residence, 121 Lincoln av.; office, 156 N. Clark st.; in burnt district. Loss, total. Present residence, 62 Grant place.
70. Ware, Lyman—Office, 169 Dearborn st.; in burnt district. Loss, content of office, library and instruments. Present office, 388 State st.
71. Young, Fern—Residence and office, 184 S Clark st.; in burnt district. Loss, total. Present residence, 204 W. Madison.

Secretary's Office of the Illinois State Medical Society,
T. D. FITCH, M.D., *Sec.*, 296 W. Monroe st.

To the Members of the Illinois State Medical Society:

GENTLEMEN—The Transactions of this Society were nearly ready for distribution, but yet in hands of the publishers at the time of our great fire. The publishers lost everything, and the State Medical Society their transactions for this year. Nothing was saved except a copy of the proceedings which was in our hands and a few of the articles and reports that had been published in the medical journals, and others in pamphlet form by their authors. We shall at once put these into type again, and obtain, if possible, duplicate copies of all the unpublished reports from their authors.

We ask the indulgence of the Society for our seeming tardiness in issuing the Transactions, but many circumstances which seemed beyond our control conspired to delay the issue. We have made direct application to the authors of all unpublished papers, and hope to be able to issue nearly, if not quite, a complete copy within the next thirty days.

In behalf of the Committee on Publication.

T. D. FITCH, M.D.

Reunion of the Alumni of the Jefferson Medical College.

The Alumni Association of the Jefferson Medical College proposes to hold a social reunion during the meeting of the American Medical Association in Philadelphia, in May next. The Alumni of the College are cordially invited to attend.

Those who expect to be present are requested to send their names and addresses to either of the undersigned Secretaries.

J. Ewing Mears, M.D., 222 *S.* 16*th St.*
R. J. Dunglison, M.D., 636 *N.* 18*th St.*

Prize Essay on "Diseases of Children"—Open for Universal Competition.

The President of the Medical Society of the county of New York, Dr. Abraham Jacobi, has placed in the hands of its Treasurer four hundred dollars, to be awarded for the best essay on "A History of the Diseases of Infancy and Childhood in the United States, and of their Pathology and Therapeutics."

Competitors will send their essays in English, with motto attached, and the name and address of the writer, with the same motto, in a sealed envelope, to the present Secretary of the Society, Dr. Alfred E. M. Purdy, 123 East Thirty-Eighth street, New York, on or before January 1st, 1873.

The committee are authorized by the society to withhold the prize if the essays submitted should not merit it.

Austin Flint, M.D., Ernst Krackowizer, M.D., Edward S. Dunster, M.D., Committee.